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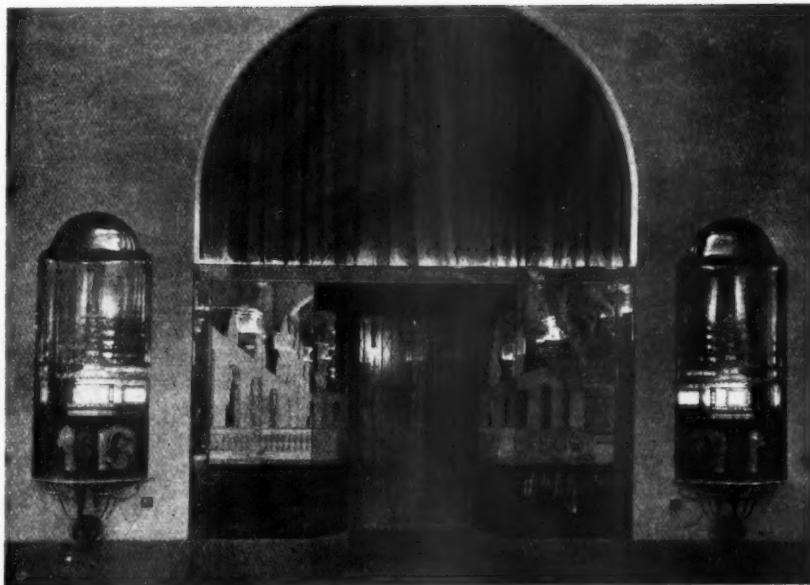
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NASH'S HOUSE, 29 DOVER STREET
Pen and ink drawing by Hanslip Fletcher

29 Dover Street W. Hanslip Fletcher 1926



ENGRAVED MIRROR AT CLARIDGE'S HOTEL

The lower portion is engraved and filled in with black to represent railings; the border is gold and pink mirror

Modern Glass

BY BASIL IONIDES

[Read before the Royal Institute of British Architects on Monday, 17 December 1928.]

I FEEL that I do not know much about this subject, but my only consolation is that I don't think anyone else does either. Even the manufacturers do not seem to know what they can do and what effects can be gained by different treatments. The only way to get things done is to decide on the result needed and then to strive to get it with the help of the makers. There are many different effects that are used in glass, but so misused that they look impossible. Decently designed these may be wonderful, and many good ideas have been lingering in public houses and similar locations waiting to be well used. These were put into the saloon bars because glass does not wear out, is easy to clean, and always looks bright and cheerful.

I fear that anything I may have to say on this subject may sound very egotistical, as I can only speak of my own experiences, and when one does that one sounds as if one does not know of others, whereas there are beautiful decorations by Mr. Norman Wilkinson to be seen at Atkinson's, and by Mr. Emberton in numerous shops, besides the lovely fountains at the Carlton by Messrs. Bague's, and numerous electric fittings fitted with glass by many firms.

I have probably been very lucky, and have had clients who have been willing to experiment and have had the means to do so, and discard the failures which, of course, one does not mention.

France has been the leader in the more modern forms of glass work, though really there is practi-

cally no work that we cannot do over here. It is expensive to make the moulds for cast glass, and so there has not been much enterprise in this line in England, though on the Continent many delightful figures and decorations have been done by manufacturers like Lalique, Damon and others; however, these may be imported and used well. All sand-blasting, etching, aciding and engraving, however, can be as well done over here as anywhere else, and never has glass been better, more varied, or easier to get than it is now.

I have often heard people complain of the cost of glass. There is really no reason for this, as it is a finished article and has no upkeep charges attached to it. So many people will agree to work that appears cheap for the fundamental part, but which will require many ornamentations before it is complete. Glass decoration is very complete in itself, and does not need embellishments. It is also very amenable, and may be coloured in all and various shades. It does not fade.

The fault that many modern users of glass fall into most frequently is the use of too great variety, and then the results are often somewhat vulgar. There are various other causes for this garishness. Too sharp bevels wrongly used is a frequent one. Colours that are hard and too contrasting is another. Colours in glass may, of all materials, be brighter and yet softer. The transparency of the material gives it a glow and life that cannot be got in any other material, and which intensifies the colour, so that a softer shade is desirable in glass than would be needed elsewhere.

The cost of glass is rather bewildering, and one is always hearing complaints from the makers that they are asked for prices for so many feet super without any indication of the size of each sheet, and, as an indication of the variations, one can quote that $\frac{1}{16}$ polished plate runs as follows:—

Sheets 1 foot super are	1s. 1d.	per foot.
.. 2 feet ..	1s. 3d.	"
.. 3 feet ..	1s. 11d.	"
and so on to 100 feet ..	at 4s. 3d.	"

Sheets over 100 feet super or over 160 inches long or 104 inches wide are about 7s. 6d., while for very large sheets, say 297 inches long and 120 inches high, the manufacturers will charge what they like, according to what they have in stock. These figures show how much is dependent on size of sheet and how much shops have to pay

for their display windows. White rolled glass $\frac{1}{8}$ — $\frac{3}{16}$ or $\frac{1}{4}$ inch thick, is in sheets about 10 feet by 3 feet 6 inches, and costs from 8d. to 1s. per foot, while cathedral glass $\frac{1}{8}$ inch thick is in similar sheets, and about 8d. per foot.

Bending Glass.—One may bend glass into all sorts of curves for windows and other uses, but a double bend seems to be a great difficulty, and, of course, too sharp a turn is impossible. Good decorative effects can be made by the silvering of sharply bent glass, as this gives pretty distortions and plays of light. For niches, cornices and such places this is very useful, but slightly bent mirror glass on the eye level is most distracting, as it merely makes funny reflections. However, bent glass acidized is one of the best cornices for lighting effects, and is quite cheap.

Muffled glass used to be made by Messrs. Chance, but is now made elsewhere. Its point of interest is that it was the first ornamental glass to be made deliberately.

White Rolled.—The popular form of modern French glass is mostly white rolled glass acidized or sand blasted. The sand blasting gives greater depths to the design, but does not give much variation of texture. One can sand blast for depths and acid for texture, however, and the effect is very good, especially if the light is going to fall slantwise on to it. An interesting effect can be got also by filling the sunk part of the design with colours, gilding, white or black, and also one may silver the back of one portion, paint the back of another, and so forth to elaborate the design, and allied to this is cathedral glass, which is found in many colours.

There are also many glasses such as are used by the stained glass window makers, but these are so varied and come so differently in different sheets that they cannot be catalogued properly, but have to be selected for the place specially.

If one looks endways on to clear or white glass it mostly looks green, but this definitely white glass can be got, though it is more expensive. It looks almost white when looked at from the edges. This is better if one is going to sand blast or etch it.

Flashed Glass.—Flashed glass is white glass on which a thin colour has been applied on one side. There are certain clear and very beautiful colours that can only be got in this type of glass. The most useful is a pink that is made with gold and a very fine green made with copper, and also a

good yellow. None of these colours can be got in ordinary glass so effectively as in the flashed. This flashing can be used very effectively, as one may have designs acidized on it to take off the colour, and leave the design in the white with the edges and design gradually shaded like a cameo. For intimate work this is invaluable, but for distant positions the fineness of the work will be lost. This flashed glass is only procurable in sheets measuring 30 by 24, and consequently is not suitable for any large spaces. Incidentally, the strong colour is too much in large pieces.

Light-increasing Glasses.—There are many forms of light-increasing glasses that may be necessary in places to throw extra light or light in special directions; but, unfortunately, they are almost all unsightly. However, for their purpose they answer and must be used.

Fireproof Glass.—Fireproof glass is demanded by the London County Council in many places, some of which are almost humorous. It is usually made in small squares with copper framing, but the design can be varied and might be made better.

The manufacture of fireproof glass is intriguing. Copper canes are made and are laid out in the design required, which can be any one that one desires with spaces up to four inches across between the canes. Then glass $\frac{3}{16}$ or over is cut and fitted exactly between the canes, so that both sides are flush and the whole tight fitting. This is done on a tray that is put into a galvanic bath depositing copper. This bath deposits the copper on to the copper canes, so that it oversails the edge of the glass and embeds it, making one solid piece of the whole. This glass cannot be repaired when once broken unless it is replunged into the bath, and even then badly.

Vita Glass.—One must, when talking of modern glass, mention Vita glass, as this is of the most scientific interest architecturally, and no doubt the day will come when all windows will be fitted with it. It allows the ultra violet rays through in greater quantity than other glass, and even on dull days the light coming from outside has a beneficial effect on humanity, plants, and, I fear, insects. I am told—I cannot verify it—that in greenhouses, where vita glass makes the plants flourish, the pests do likewise, and that future generations of spiders and flies may be enormous. Certainly for nurseries it should always be fitted into the windows.

This glass is sold in plate glass up to almost any size. In cathedral glass, 8 feet by 3 feet (about). In sheet glass, 5 feet by 3 feet (about). It is made by Messrs. Pilkington Bros.

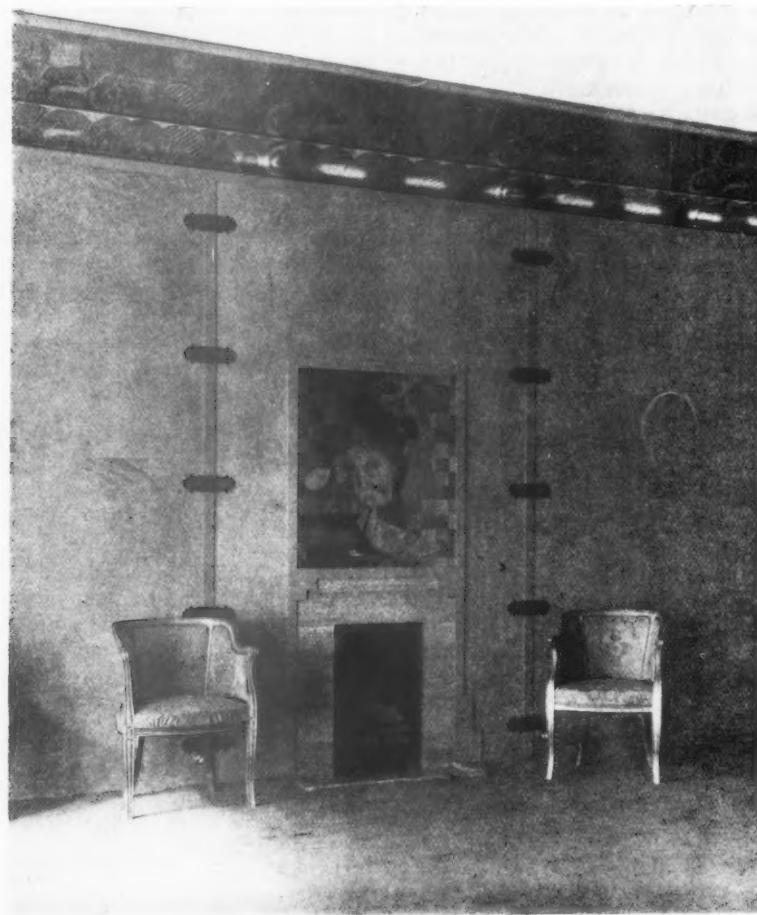
Stoved Glass.—The French are making some very delightful glass which is stoved like porcelain. It has wonderful graduations of colour, somewhat mottled, which gives a charming quality. This glass, apart from the patterned variety, I have found useful in a graduated form. One can get sheets, alas, not larger than about 3 feet by 1 foot 6 inches, which are dark on one side, shading to white. I got this from Damon, in Paris, and used it for glazing doors and windows which were divided up by astragals. The shading is arranged diagonally in the way an architect colours the windows on drawings, to show his client and to give it sparkle. I found that this arrangement of diagonally shading each pane gave windows looking into a well a sunny look.

For table tops this stove glass is quite good. If the other side is acidized the design shows through with a mistiness that has a charming quality. It illuminates well also, and half bowls of it fixed to a wall make a good lighting feature. There are many designs that are suitable for stoving on glass, but the most effective are those that are outlined in thick white or black, and the designs filled in somewhat after the manner of coarse mosaic, and the many shades of white that can be got can be used for a full design. I believe some makers are beginning to make this over here now.

Marmarine, etc.—There are a good many glasses and glass compositions on the market, such as Marmarine, Vitrolite, etc. These are tremendously useful to architects, as they are so very strong, and can be got in good sized sheets about 10 feet by 3 feet 6 inches., and in varying thickness. They are most admirable for counter tops and tables, but in colour they are not so easy to get thick as in black and white. The edges are easily polished, and the glass can be cut into any shape, and so it is most valuable for many uses, and can be used for whole wall decorations in bathrooms, kitchens, lavatories, etc., or it can be fixed as splash boards behind wash basins and similar places. This in a thin form is opal glass. One sees it used a good deal in the cheaper restaurants for ceilings; but this does not show how it can be used decoratively for better bathroom ceilings,

where one can have a patterned design in metal inlaid with this material in parti colours. This glass can also be acidied in patterns, and it is very effective if one does that and fills in the design with gold or silver leaf, or even in colours. It

There is also Marmorite, which can be got in black, white or green marbled, and which is polished on one side and is ribbed on another, and very useful. It costs, however, about 4s. 6d. to 6s. 6d. per foot super.



MIRRORED PANEL IN GOLD AND SCARLET

has somewhat the effect of damascening and is very beautiful on black.

These materials can be fixed either with screws and pateræ or in T shaped metal frames. These cost about 2s. per foot, in sheets about 10 by 3, but the surface is a little wavy.

Processes of Decoration.—There are various ways of decorating on glass, and perhaps I may mention a few of them and their processes.

The most expensive way of making a pattern is engraving. There are very few workers at this art, and it is extremely laborious, as the glass

has to be held in the hand against the wheel. The first cutting is done with an emery wheel, and after that it is polished with copper and brass wheels. These wheels are small and rapidly revolving. The great limitation of this work is the

wood wheels. These are generally willow wood, and are worked with putty powder or rouge.

Sand blasting is useful for designs that are like a stencil, but unless after treated to give a varying surface, it is a little monotonous. The part not



WASH-BASIN AT NO. 2 SEAMORE PLACE

With mirrored cove in white and gold glass; marble work in yellow onyx
(Photograph reproduced by permission of *Country Life*)

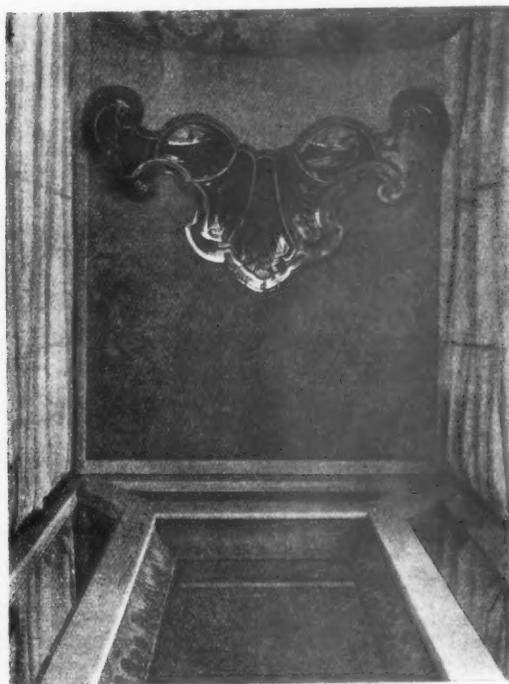
smallness of the sheets of glass that can be worked, but the results are of the most brilliant.

Then there is brilliant cutting. This is possible on larger sheets up to about 6 feet by 8 feet, which are slung up and counterbalanced. The glass is pressed against stone wheels, which do the first deep cutting, and then it is polished with

to be done is covered with prepared glued paper and then the blast pressure of sand is put on to the rest to the depth required.

Etching is a very cheap process, which glass workers will not seriously consider, and so it is relegated to the engraving of cheap patterns and initials on mugs at exhibitions.

Bevelling.—Bevelled glass became very popular in the late seventeenth century, and since then has been constantly used in all ways. In the early eighteenth century the very smartest houses had the windows glazed with bevelled Vauxhall plate as one sees at Moor Park. This would be very effective to-day if one could convince one's clients that it was worth while.



BED HEAD IN BLUE AND GREY GLASS
Finely bevelled and cut
Photograph reproduced by permission of *Country Life*

One great mistake of most modern bevelling is that it is too sharp. Of course, it depends a good deal on the size of the plate, but it is seldom good to have a bevel of less than three-quarters of an inch except at the butting of two sheets of glass, when it may be less. Of course, on thin glass, one's bevel can be less, but generally speaking, three-quarters to one inch is a good bevel. It is waste to put a bevel on large sheets of glass say over six feet in height, as here the bevel would

be lost in the size and a polished edge would do as well. There is nothing more delightful than mirror or glass cut in curves and angles and bevelled, as the play of light at the corners is delightful. Bevelling, if too sharp, can be so vulgar, and the greatest care must be taken with it not to look too new.

While on the subject of bevelling, one might mention the modern fashion of cutting V lines on mirrors to represent the joints found in old piece mirrors. This is effective, but not so good as a genuine piece mirror where the joints give a break in the reflection and so add charm.

Bevelling is the working on glass that is more done than any other, and more badly done than any other. Since the War, there has been a difficulty about the willow wood for finishing bevelling, but the situation is better now. The plates to be bevelled are worked horizontally first with an iron wheel working with sand. Then it is worked with stone and lastly with willow wood and putty powder or rouge, and it is in this last process that the faults appear and a certain "ropy-ness" turns up. This should be looked out for, as one does not get it in the good old work.

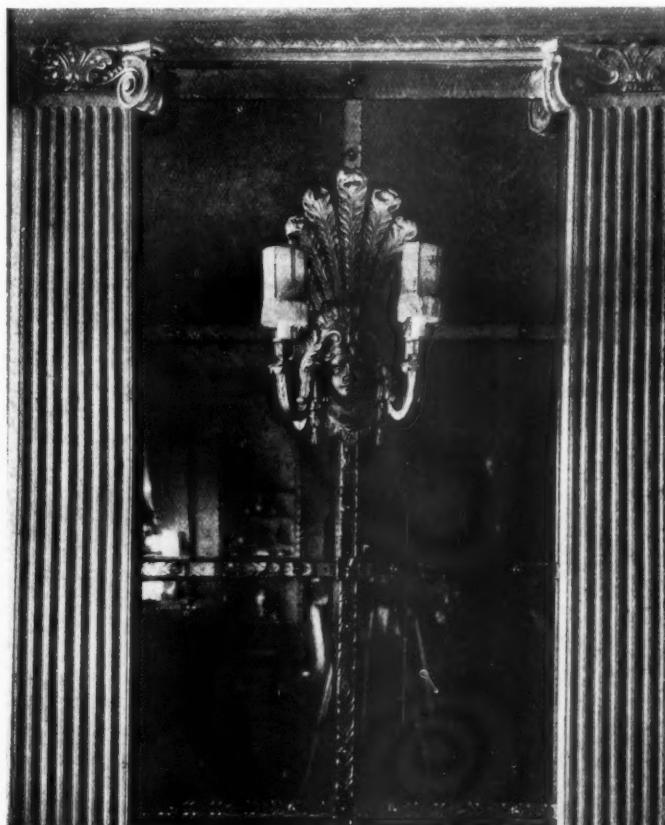
The cost of bevelling is about as follows:—
 $\frac{1}{2}$ inch bevel, 8d. per foot; $\frac{3}{4}$ inch bevel, 9d. per foot; 1 inch bevel, 1s. per foot, providing the plates are not too long. If the plates are over 10 feet long, then the cost will probably go up fifty per cent.

V cutting on large mirrors costs about 15 per cent. more than a piece mirror.

Aciding.—The aciding of glass to make it frosted is well enough known, but it is not realised as a rule that there are different varieties of aciding that one may have done on plain plate glass. There fell into my hands a very lovely piece of old engraved glass which gave me the idea to make large panels of this for Claridge's Restaurant. I consulted the glass workers, but we concluded that it was not possible to make such large panels in engraved glass, but that a similar though not quite so nice effect could be got by aciding, and after a few experiments to find certain suitability of design, we were able to get to work. We found that it was impossible to engrave anything to look like clouds, and that shading on faces was not successful. However, line work and broad surfaces were quite successful. I then realised that the mirrors and windows in public houses and

such like decorations were done in this way, but that the designs were bad. Good design put to this treatment is extremely effective, but I think that it should be the landscape type of design and not floral or geometrical, unless it be cubist. Cer-

acids which the workers call white acid, French acid and Fluoric acid, and a great many different textures can be got with these by using them in varying strengths. By re-application, quite a considerable depth can be got. The process is



DETAIL OF MIRROR AT BARROW HILLS, CHERTSEY
Showing brilliant cut strips

tainly, cubist designs are very effective done in these treatments.

It can be done on any glass, though on any but the plainer sorts it loses most of the design. Very good patterns may be done on white rolled glass acidized and part, perhaps, picked out in black, gilding, or in colours, but only in black if light is to shine through it.

Embossing with acid or aciding is done with

to cover the parts not to be done with a tallow solution and then apply the acid. This gives a single texture result. Another application of tallow can then be put so that other portions receive treatment to give relief to that already done and so on, until the design is fully illustrated. The cost of this process varies from 2s. 6d. per foot for simple designs to 30s. for elaborate.

Mirrors.—Mirrored glass can be very varied

and silvering can back all glasses from plain sheet and plate glass to coloured cathedral acidied. The method of silvering is as follows. The glass to be silvered is laid perfectly horizontal on a flat tank, warm and felt covered. It is then cleaned with ammonia and distilled water, and after that the solution of nitrate of silver is poured on so carefully that it lies on the surface and does not run over the edges. This liquid deposits the silver on the back of the glass and the liquid portion is poured off. The back is then varnished and treated. After this it should be backed. This can be done by special paint, or by backing it with rubber solution or lead foil, which is a protection against damp or steam.

The general effect of the silvering will be very dependent on the quality of the glass, and for good mirrors, plate glass of a good white quality should be used, and it should be without flaws, as these give distortion. This distortion may also occur if a large mirror is not properly fixed, as the flexible quality of glass will allow it to bulge or sag and give bad reflections. It is not difficult to fix a fair-sized mirror at the top and the bottom. There should be middle fixing as well to stop the curving.

The silvering of mirrors can be varied in tone from bright light silver to a deep grey black. This variation is of the greatest use, as not only can one make up frames and patterns of piece mirrors of differently toned mirrors, but also differently toned mirrors will be found suitable for different places. The Victorians used to put large mirrors into rooms to give an effect of distance. As a rule, these glasses only looked rather grand and showy. This was due to the fact that they were of white mirror, and had they been of deeper grey tone, they would have been much less showy, and would have given a great deal better effect. It will be found that light grey tone mirrors will give a great sense of distance. One can play on these tones to great extent. I have had mirrors made in five perpendicular strips. The two outer panels white mirrors. The next two light grey, and the centre dark grey. This gives a curious receding effect, and, placed at the end of a vista, makes for a distant appearance.

A good variation of shades in mirrors is to have a piece mirror fixed with bands of bevelled mirrors, the main mirror being white and the bands grey, or *vice versa*. The edges of these bands must,

to be effective, be bevelled with a wide flat bevel known as Vauxhall bevelling.

Besides the silvering of glass, one can also have glass gilded on the back. This is not an easy process for large surfaces, as it has to be done with gold leaf which is put on with size, and is apt to have marks showing. It is, however, invaluable where a sunlight effect is desired, and is lovely on table tops and window sills. I have, however, had a variation of this made, and have used this on walls and for table tops. It is thus. The leaf is put on in squares, which are apt to show the lines of the joins, and so I have tried to make a virtue of this, and have used many coloured gold leaves staggered. Leaves of some eight different tones will be found quite sufficient, and they may vary from white gold to a fairly deep coppery tone.

The gilding of the back of glass can be most effectively done on acidied or sand-blasted glass, and any pattern that there is can be emphasised by the use of different golds for different degrees of aciding. I have had a panel done for a room at the Savoy Hotel on which a figure is shown in Japanese dress. The different robes are done in different tones or degrees of acid, and gilded in different golds touched in places with scarlet. The background is of gold leaf behind clear glass in staggered squares. There is a similar panel in silver in the next room.

There is a form of mirror that is used by illusionists, that if the light is behind it can be seen through, and if the light is in front, acts as a mirror. I have seen it on a lower window pane, so that the people in the street see mirror, while those in the house can see through. The view though, however, is a bit spotty. But it may have advantages.

For frivolous work, one can have great fun with mirrored glass. Seeing the pretty shapes of some pateræ on old mirrors, I got an idea to make a small vase of flowers in glass mirror. It was on a panel of grey mirror and at the base was a bowl of blue glass cut and shaped; above this rose, V cut lines to represent stems, and on the top, glorified pateræ to represent flowers. This was all right as far as it went in its own simple innocent way, but it led to the making of some terrific affairs which are in the foyer at the Savoy. These are six feet high mirrors with vases full of all sorts of flowers on them. The vases are of gold mirror, while the flowers are in endless colours

of mirrored glass, with leaves and buds all cut and fixed on the surface. They are certainly bright and gay, and keep so, but as each mirror has about

towards the top. The result is a free treatment of the shell-topped niche, and takes a round form.

Another use for mirror that I personally find



MIRROR PANEL AT THE SAVOY HOTEL
Decorated in mirrored glass flowers

three hundred pieces of glass on it, each cut to a special shape, they were not cheap. In the same place we have put niches of glass made up of strips of mirror and pink glass for the drum, while the top is of scale shaped pieces of glass diminishing

accepted by clients is for simple mantelpieces. These are usually carried up to the cornice as piece mirrors with borders and shaped panels, and the opening is shaped. The surround of the opening may be of strips bevelled on one side and super-

imposed over each other to give depth. These may be brought to the edge of the interior if the fire is electric or gas, but if coal or wood, then a marble slip is needed to protect the inner edge.

If one desires a good piece mirror, one should specify that all the plates be cut from one sheet, as the quality and tone of different sheets vary considerably. The pateræ for fixing piece mirrors are best of cut glass with mirrored backs, but there is a cheaper form made of cast glass. Silver mirrowing costs about 1s. per foot, of glass, and gold leafing the back of glass about 7s. 6d.

Everyone knows the blue borders that are to be found round old mirrors and round modern copies. These borders can be done in almost any colour, as not only can they be made in coloured glass silvered on the back, but also there is a cheaper form of coloured foil backing which gives a similar result, but, of course, not so good.

This mirror bordering can be used to edge other panels than mirror, and one may even make effective picture frames of it, especially if one has two or three strips superimposed and decorated with metal acanthus leaves to cover the fixing screws. These acanthus leaves may well curve down over the severed strips and across the corners. These frames will only suit a strong picture, but they are invaluable for notice boards in shops and hotels, where they are sure to attract attention. Mr. Philip Tilden has had a charming small gallery decorated in glass, mostly black, with pilasters, cups and vistas all in mirrored.

Modern Lay Lights.—White is the most popular colour for lay lights to-day, and very lovely some of them are; also to-day electric light being available to put above them at night, they are not a blot after dark, the way the old ones used to be. Although there are many very beautiful lay lights made to-day, one does still see atrocities with bosses, bevelled edges and cut designs being made.

The secret of a successful lay light is the tone of colour, and I think this should always be light and quiet. A lay light should never be strident or restless, but at the same time it should be warm looking, as, being placed where sunlight seldom reaches, it has to supply its own. All forms of acid glass are most useful. One can't see through it, and it has just that opaqueness that is needed. Aciding softens the colours of glass without in any way spoiling it, and as long as the acid side is downwards it is easy to keep clean. When fixing acid glass with putty it

should be rubbed with raw potato to keep the oil of the putty from spreading on to the glass; it is the starch that does this.

There are a great many geometrically designed lay lights that are perfect for their positions to be seen about in different places. It is not good in a lay light to have too large sheets of glass, and sometimes the simplest of designs are most effective. I have had to make a fair number, and I must say that the ones I liked best were simple hexagons like patchwork in a series of about eight pale warm colours; but there are very many quite lovely French ones to be seen.

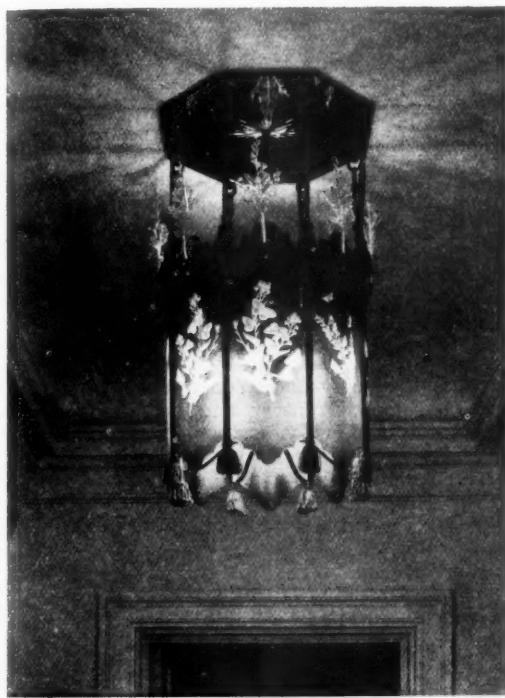
Lighting Glass.—The most noticeable phase of modern glass is that relating to electric lighting fittings, because at last it is being realised that an adapted candle is not really the right way to present electric light.

There are now many patterns of cast glass that are invaluable for this purpose, and these are being made chiefly in France. The greater number are cast and then acid or sand blasted, and many of them are very lovely. The glass is usually cast in white, but very often a little colour is added to the sand blasting or aciding to give a warm tone to the light. There are many stock patterns that may be used in various forms to build up decorations for lighting, and one can procure cornices, friezes, pilasters, and many architectural features at very reasonable figures, and which, when well arranged with lights behind, may be quite attractive. Care must be taken with these architectural features that the lighting globes do not show through the glass. The best way to overcome this, if there is room, is to have a white or slightly tinted backing, on to which the light is cast to reflect back through the glass, the light itself being concealed at the side of the glass. This is really the only sensible way to light a lay light also, and if the lay light has to provide daylight as well, one can have a white roller blind to pull over and serve as a reflector at night. The quality and beauty of one's glass gets hopelessly spoiled if the lighting is spotty, and to avoid this it must be reflected.

This cast glass can, of course, easily be specially made, but in England I fear the manufacturers are so slow and so expensive that it is almost prohibitive. One can, however, send to France, Germany or Czechoslovakia for it. But it is always expensive, as an iron mould has to be made for the casting, and this seems to be considered a great adven-

ture for one event. It is curious how the English makers hate being made to go out of their accustomed stride and produce anything new unless they are sure that it will suit every little villa that is built. They seem to hate to produce better class work.

To get the full benefit of cast glass it will be found that the light should fall from one side rather than



LANTERN AT NO. 2 SEAMORE PLACE

In green flashed glass acidied

(Photograph reproduced by permission of *Country Life*)

from all round, as then the high lights show up so well. I have had to introduce a Lalique panel above a door at Claridge's Hotel. It represents a group of figures running in one direction, and we found that by placing the light at the end towards which they are running the light lights showed up best, and thus increased the sense of movement in the design. All designs will demand similar thought. A flower design should grow towards the light, and so forth, as the light travels in the glass and comes out on the reliefs.

Casting is not the only way of getting relief on glass. One can get deep relief by sand blasting and by aciding, but one cannot get the modelling that casting gives. However, for lighting fixtures, sand blasting and aciding will often provide the necessary ridges to push up the light. We have had made at the Savoy Hotel a double cornice of acidied glass, which is lighted from between the two sheets by strip light. This aciding emphasises the pattern and gives an extra play of light that a straight painted pattern would never allow. Plain painted glass almost always looks too thin, but as soon as one introduces relief it is saved from monotony.

Everybody knows the notices that are hung in shop windows and other places and which are made in plate glass, with the lettering incised, and with an enclosed strip light so fastened at one side that the light can only escape through the glass. This it does invisibly until it reaches the incised part or the edge, and these it then illuminates. Very little use has yet been made of this quality of light in glass for decorative features, and yet it can be very lovely if a beautiful design is etched on. The light will travel up to three feet, though, of course, this depends on the power of the light and the thickness of the glass. Plate glass is best for this, as rolled or other uneven glass picks up the light itself and distorts the design if it is to stand out on a transparent surface.

Sweden is producing some very effective glass, particularly in pale blue, and they are cutting it in a new and most effective way. The greater part of the Swedish glass that is imported here is a very beautiful pale blue, but it is made in other colours, and they are making lanterns, bowls and plaques that are extremely good and which possess a quality of design and refinement that is not met in French and other continental glass. The Czechoslovakian firms also produce good things, but they are not of such high grade as the Swedish or French, at least those that are found over here being sold commercially are not.

There is a tremendous vogue also for lighting fittings of plain and opaque glass, mostly white, some of this is excellent, and with very little metal or leading makes admirable light fittings; and as there are many grades of white to be got, one can vary them in the same fitting, thus giving relief to a design that otherwise would be a little monotonous. Coloured glasses can also be used, but very great discretion is needed with them, and only

delicate tones are possible. However, most delightful semi-opaque glasses are to be found, some being flashed—*i.e.*, thinly coated with colour on an opal foundation.

It is curious that one sees so many lantern electric light fittings that are very well designed, but which are fitted with glass of a dreariness and dis-

tressing quality that kills them. There are such lovely glasses that might be used and yet such miserable ones are usually seen.

One might talk for ever on the modern glass that is being made for table and other uses, but this does not really concern us now, and is best left.

Discussion

MR. MAURICE E. WEBB, D.S.O., VICE-PRESIDENT, IN THE CHAIR.

Mr. HENRY M. FLETCHER [F.], in proposing a vote of thanks to Mr. Ionides for his paper, said :—

It was interesting to hear Mr. Ionides say that the title of the subject should not have been "Modern Glass." I had the privilege of reading through his paper beforehand, and it struck me—though he did not say it in the proof—that the title might have been "Old Glass," because the astonishing development of the use of glass that we have seen in this country in the last five or six years—I do not know how much earlier it began on the continent—is all produced from small germs that you can see in the use of old glass. He spoke of the bordered mirrors which you find at Hampton Court and places like that, and the Venetian engraved mirrors have had a great influence on the development of this use of glass—also I think the old use of glass as borders to windows which you find in lodging houses at Brighton and similar places, where there are blue strips down the edge, and a little yellow star at each corner. I have always had a sneaking liking for that treatment. I think Mr. Ionides will agree that has had something to do with the modern use of glass. Then there was the ground glass with clear stars in it.

There are many suggestions in the paper of the use of that kind of glass : obscured, sanded, or acided, or what we call "ground"; the germ has been there all the time.

A useful hint he gave was the restraint in the use of this material. It is very brilliant, and a material from which you can get brilliant effects very easily, and therefore it is very dangerous; you can so easily overstep the limit and fall into vulgarity. There is a shop, not very many yards from here, in Regent Street which is an extraordinarily clever piece of work, and which has got just about up to the limit which is allowable. You could not have it in many positions, but in a shop which is definitely out to make a show you can allow that sort of thing much further than you can in domestic work, or even in hotel and restaurant work.

There were one or two points in the paper that I should like to ask the reader about. One is about the bevel. He spoke about a 1 inch and a $\frac{3}{4}$ inch bevel, etc.; but surely what is most important in the bevel is not its size but its angle. The beauty of a bevel is obtained from a very flat angle, that is, as near to the flat as possible, because then it is so difficult to get an accurate mechanical line at the junction between the bevel and the plane surface; there is a certain amount of give and take in it which is pleasant to see.

The use of grey mirrors was new to me, and I ask whether it is a purely modern development, or whether in the eighteenth century and pre-Victorian days mirrors were used in that way.

Again, the depositing of silver on the back of mirrors, is that a modern process? One used to speak—probably inaccurately—of mirrors being "quick-silvered"; was it mercury which was deposited upon them, or was it a deposit of silver?

One of the drawbacks is that this work is so difficult to see; it is mostly in private places. What we are able to see are commercial adaptations of it, used in shops and in the streets, in which it is hard to judge of the fine effects which are possible. I hope that, if there is time, Mr. Ionides will take us round the interesting photographs he has brought, and explain what process was used in each case.

As to electric fittings, I do not think the problem has been solved yet. Some of the modern developments of electric fittings are very interesting and very stimulating, but I do not feel that they really have the quality of electric light in them. Is not the thing you want to express in electric light the conducting of the current to the lamp? And is not the corona treatment the most appropriate of all for electric light? The difficulty with it is that you get a number of points of rather dazzling light, and if some way could be found of subduing that and binding them into a whole, I think that, in a way, it would give a more natural treatment. The hanging of urns, or of polyhedral figures like crystals, hardly seems to be the right thing. And the shapes that the modern designers have adopted for

wall sconces also seem rather forced and strained ; they do not give the effect of the old candle sconces, though one recognises that the candle about an electric light is utterly wrong from beginning to end.

I could not quite agree with Mr. Ionides' remarks about Vita glass when he said that its effect was to encourage pests, and therefore it ought always to be used in nurseries !

Mr. NORMAN WILKINSON, in seconding the vote of thanks, said :—

I feel, to-night, rather like a quack amongst a lot of qualified doctors because I am speaking in the capacity of what I may call a decorative artist in the presence of a gathering of qualified architects. However, I believe a great deal of the glass work of to-day is the concern of the decorator, and I think what Mr. Ionides has been talking about is what one might call the decorative treatment of glass in contradistinction to the use of glass in a purely structural and architectural way. Where saneness and moderation are necessary in constructional glass such as in windows, or in larger structures, glass roofs and the like, a certain amount of amusement may be indulged in decorative glass. One can treat decorative glass in a lighter and more flippant fashion, and go further than the architect in that way. He is a qualified man, and so he cannot be allowed to let his building fall on people and kill them ; whereas the decorator can perform any atrocity, because he can mentally, morally or artistically kill people—that is a sort of insidious death which is not noticed. But I think decorators in glass try, as a whole, to curb themselves in a material which has all the possibilities of showiness, flare and chic. This is, perhaps, one of the great pitfalls of decorative glass, as I think Mr. Ionides would agree. Mr. Fletcher might have mentioned my shop decoration in Bond Street instead of the shop in Regent Street and said it was vulgar ; but decorative glass for shops is often used from the point of view of legitimate advertisement. In defence of myself, I would say I do not always believe in so much glass in one place ; the shop I did for Atkinsons was an attempt pleasantly to "knock people in the eye." In speaking of modern glass, I do not think one need necessarily consider that decoration in glass is to any extent very greatly advanced beyond what was done in the past, and I think that Mr. Ionides will agree that people have in many ages done amazing things in decorative glass. One instances the Venetian period, in which glass of all descriptions—for utensils, mirrors, etc., as well as for big decorative purposes—was used. And one would not like to omit mention of one or two examples in England. For instance, there are the Brighton Pavilion chandeliers, which are extraordinarily beautiful productions in their way, and, in a sense, still hold their own and have pointed the way to what

can be done, or at any rate given some inspiration. Some of you may have seen, in the Crystal Palace, the very remarkable glass fountain. Some people may have forgotten about it ; others may have seen it to-day and found they have not known of it. The Crystal Palace enshrining it has a marvellous decorative quality, due to the very beautiful use of a multitude of plain glass panes set in a certain way.

The CHAIRMAN : Will Mr. Walter Gilbert say a few words ? I asked him to come because he is producing this cast glass in England, glass which has mostly come from France, Czechoslovakia, and other continental places.

Mr. WALTER GILBERT : I have studied the work of my continental competitors, though it is very difficult to get the opportunity of going into factories abroad, to see how the work is done. I managed to get into two—possibly because they thought the difficulties of the pressed glass manufacture were too great for a visitor to carry away serious knowledge of the processes, and also because they thought I was rather ignorant about metal work, and knowledge of metal work plays an important part in the production of pressed glass. But I did learn something in these factories. I also became aware that they did not know something which I knew, and which has enabled me to make headway quickly. I saw the processes employed abroad, and there is no reason why they cannot be carried out in this country, as indeed they are being carried out by myself and my colleague, Mr. Riley, working in co-operation in Birmingham.

Pressed glass is not an easy proposition ; my experience has led me to conclude that it is one of the most difficult of the industrial arts, because every mould which you make has to be so studied that you get to know its idiosyncrasies. Upon the successful interpretation of these little idiosyncrasies depends the success of the work.

There is no doubt that some of the French artists do very beautiful work in pressed glass ; they also do some of the most commonplace. I believe that even in the case of the best there is room for improvement. Pressed glass is a plastic material. It is material for the sculptor rather than for the painter. By this I mean that the lines of its decoration should be structural or on an architectonic basis. To my mind—if I may be allowed to say so—Lalique would be sounder if he felt the matter from the sculptor's side, rather than from the decorator's or the painter's side. Personally, I think I would like to view pressed or moulded glass with the eyes of Flaxman or Stevens. Flaxman carried his inspiration from the Portland vase into his pottery for Wedgwood. That his ladies are not gay and are draped was not his fault, for he had to conform to the autocratic will of the old Quaker.

But when you study his compositions and the soundness of the arrangement of his patterns, you hesitate to accept Lalique as the final word in this material, however beautiful Lalique's work may be. I think I prefer to study one phase of pressed glass through Flaxman, and get back to the dignity and restraint of the Portland vase. If we could get pressed glass from men like Tegner, Wedekinch, Milles, and the American sculptor Paul Manship, men with poetic minds, we should obtain a restraint and a selection, and—last but not least—an imagination which is something more than a surface arrangement of pattern in one of the most beautiful materials that man has ever devised.

Colonel Sir COURTAULD THOMSON, C.B., K.B.E., also spoke.

Lieut.-Col. CART DE LAFONTAINE [A.] : We have not heard about one thing, which we cannot escape any time, and that is the illuminated advertisements ; the sky-sign of illuminated glass. I think it has great possibilities if it were considered as an ornamental feature, instead of being merely one of those things which are looked at with disgust by everybody. These signs could be taken in hand by people like Mr. Ionides, who really know what can be done with effective illumination and glass. If we think of Piccadilly Circus and other places we can see they might become examples of the best modern feeling in glass, even in advertising, for why should not advertising be a thing of beauty, instead of a monstrous insult ? Perhaps Mr. Ionides, in his reply, might indicate whether there is any hope that improvement may result from the work that he and his colleagues are doing.

Mr. PERCY J. WALDRAM [L.] : May I suggest that the value of this paper would be considerably enhanced if the author would add, for the benefit of those who are unacquainted with the technique of glass making, a short description of the various terms he uses in the paper, such as "acidizing," "stoving," "etching," "flashing," etc. In particular, one notices there is an apparent difference drawn in the paper between embossing with acid, acidizing, and etching, and it would be of interest to know what, exactly, the differences are. Also, it is mentioned that etching is done with white acid, French acid, or fluoric acid. This may refer to different materials or be merely workers' terms for fluoric acid in each case.

The value of this paper is great, and certainly it arouses many points of considerable interest. In particular one is grateful to the author for mentioning that softer shade which is imparted to materials when placed behind glass ; one recalls the delightful soft shades found in glass mosaic, as, for example, the old and new gold mosaic at St. Mark's in Venice, where the gold-leaf is covered with a thin layer of glass. The effect is soft and pleasing in situations where gold-leaf without glass would probably be horribly garish.

The author mentions the distracting reflections from bent mirror glass on the eye level. But slight bending of clear glass may serve to avoid distracting reflections. It may not be known that the difficult question of avoiding reflections in shop windows has recently been dealt with, I am told successfully, by bending the glass to a slight degree in a vertical plane, thus destroying the interesting view of one's own face rather than of the objects displayed in the window. The author mentions "light-increasing" glass, and I suggest that it might be explained what this is. I take it as referring to prismatic glass, which, where windows are obstructed, will turn high angle light from outside on to the backs of rooms which it could not otherwise reach. If so, the term "light-increasing glass" is surely rather a misnomer, as there is produced no increase of light.

We often speak of etched or acidized glass as "obscured" glass, assuming that the etching or roughening prevents, to some extent, the passage of light through it. It only does it in this way : that the etching or corrugating of a surface increases the area of that surface within a certain space. It may not be generally appreciated that the loss of light in passing through glass is almost entirely confined to the loss on the two surfaces. Glasses of different thicknesses will, within the limits of ordinary measurement, transmit the same amount of light, the extra thickness making no appreciable difference.

In the ice cavern which is cut every spring in the Upper Glacier in Grindelwald one passes along a narrow bent tunnel some 200 feet long cut in the "snout" of the glacier into a grotto surrounded by glacier ice with a minimum thickness overhead of perhaps 60 feet. Yet the light in the grotto is almost as powerful as outside. Unless this be due largely or entirely to internal reflection along the ice walls of the tunnel, it would certainly appear to be a most striking example of the small effect of mere thickness upon opacity.

In positions where light is scarce the quantity of light lost by obscured glass, inserted for privacy, becomes important. Practically none is caused by the etching or roughening except a very small amount due to the inevitable increase of surface. The main loss of light is caused by dirt, which is rapidly deposited inside in the crevices of any roughened surface of glass, which it is almost impossible to remove by any form of cleaning treatment. It is often necessary to insert glass which cannot be seen through, in banks in particular. One or two specimens on the table with a slightly wavy surface distort any clear vision. It is, however, possible to obtain to-day glasses which will transmit more light than plain sheet, but which so break up the rays passing through that it is possible to place a postcard against the glass and be unable to

read it through the glass. This is effected by a slightly waved surface which can be readily cleaned.

Reference is also made to Vita glass, and the author mentions that plants, as well as spiders and flies, are benefited by the ultra-violet rays which it transmits. But plant life is benefited by the stimulation of the manufacture of chlorophyll. Is it quite certain whether the rays which are beneficial to the skin of human beings, and are, I believe, slightly germicidal, are the same as those which aid the production of chlorophyll? With all deference to Sir Courtauld Thomson, who suggested that Vita glass might be useful in the country but not in the towns, I suggest that exactly the reverse should be held. We have so little light and sunshine to spare in towns, whereas in the country there is ample. In addition, one is usually healthy enough in the country to get out of doors. *The Times* of to-day, describing the L.C.C. slum demolition at Dockhead, adds the following telling words to a description of London children living in courts not much wider than the trenches in Flanders in which their fathers died. "Never again shall a child be born into the half-light and the laden air, destined to a precarious infancy and a hectic adolescence."

This may sound somewhat like exaggerated journalism; but to those who know the slums the words are not a whit too strong. Anything which will improve the quality of the extremely poor amount of light which is left to us in towns is of benefit, although it may be an extravagance in a country house. I doubt whether Vita glass could be considered as other than essential in any town hospital. No one can doubt the therapeutic value of ultra-violet rays who has noted the changed tone of the bulletins since ray treatment was tried in the King's illness. I trespass so long on your time in order to deprecate anything which would tend to throw back the efforts which are being made to get what benefit we can out of the small amount of sky which is left to us in towns, particularly for hospitals.

Mr. FRANCIS HOOPER [F.]: No reference has been made to-night to decorative coloured glass. I would pray that much which has been used during my lifetime may rapidly become obsolete. In my student days I revelled in visiting a church designed by a man immensely respected at the Architectural Association as also here. Revisiting it again recently I had to accustom myself for some time to the dim light before I could see the interior, which had been my delight. The bad light was solely due to the glass which had been put in the windows. Again, I have worshipped on Midsummer Day in an old church reverently restored by the same architect, when every lamp had to be lit to enable the people to see their Service books, not only shutting out the light, alas,

but shutting out the fresh air by sealing windows which the architect had put in for ventilating purposes. It is a very serious matter that men should be permitted thus to interfere with the work of architects, who have no redress for it.

Mr. W. J. H. LEVERTON [F.]: I ask if the lecturer will tell us the difference between Vita glass and ordinary sheet glass. Is the difference in the chemical composition?

The CHAIRMAN: This interesting and stimulating lecture by Mr. Ionides was devoted to "modern glass," and I was rather surprised that I did not hear anything about stained glass windows: Mr. Hooper has just mentioned that side of it. Whether there is no modern stained glass, or whether he is not interested in that, I do not know. But I have recently come back from the south of Spain, where I saw Seville Cathedral, that wonderful building whose beauty is enhanced by its glass. The next cathedral I went to see was Glasgow Cathedral, and if you have seen the windows of Glasgow Cathedral, you will know the merits of that building were obliterated by the stained glass which was brought from Germany in 1860. I was surprised, when reading Mr. Ionides' paper, to find no reference to glass in windows; yet I have understood that glass was mainly meant to be used in windows. Modern decorators are taking a different view; they are using glass as a reflecting surface, and that is the point of this paper, *i.e.*, in the form of mirrors, and for electric light fittings, and I think they are absolutely justified in doing so. I have been experimenting lately in glass, in conjunction with Mr. Norman Wilkinson and Mr. Gilbert, and there is a fascinating field in the use of glass for mirror purposes. That is a separate and distinct thing from the real old mediæval use of glass in windows.

And now we come to the knotty question of Vita glass. I have been engaged lately in putting up an office building, and I am bombarded by people who wish me to use Vita glass. The bombardment became so heavy that I consulted one of our most distinguished scientists—I will not give his name—and he told me that Vita glass lets through a considerable percentage of ultra-violet rays more than ordinary glass for the first two years, and at the end of two years this percentage drops. In ordinary offices you are fully clothed, so that only the head and hands are exposed to the rays coming through this special glass. I could not honestly ask my clients to bear the added expense of putting in Vita glass and this expense was not inconsiderable. No one has yet proved that it is of real practical use. Moreover, in offices people are only there six or eight hours, and fully dressed. One of my clients decided to fit Vita glass, and I went to see the building this morning. You have seen the wavy sheet glass; well, this sample of Vita glass is

worse than that—you can hardly read the street name plate on the other side of the road through it. And for cities like London, where soot and smoke and dust get on it, and where frequently the sky in narrow streets is not seen through it, I can only think there is little, if any, value in using it.

I fear this is rather like dragging a red herring across Mr. Ionides' path, because he is interested in the artistic results of glass, and you who have seen his work at Claridge's and other places will have admired the way in which he has used glass, in ways which architects would never have thought of.

The Chairman then put the vote of thanks, which was carried by acclamation.

Mr. IONIDES (in reply): It has been suggested that Piccadilly might be made better; I should love to be let loose on Piccadilly.

Mr. Gilbert mentioned that sculptors might turn to modelling glass, and that the Lalique glass might be much better. We have had to accept Lalique because he is the only person who has been producing it.

When I referred to bent glass I was speaking of bent mirror glass. Though some glass in shop windows is bent vertically, there are tremendous reflections in it.

Etching of glass is done on the surface, electric etching is flat all over. People use different compositions of acid, and they will not tell us what it is.

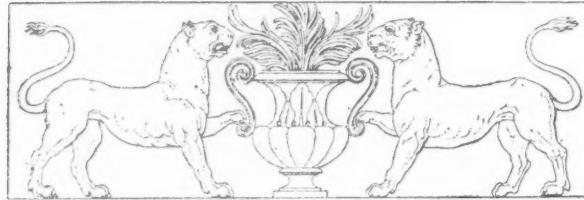
Quick-silvering is not allowed by the Board of Trade; silver is used for the backs of mirrors.

I do not know why I forgot about stained glass; nobody uses it, do they?—unless they want to shut out something; only when there is something unsightly.

The use of 18th century grey glass, I think, was accidental. Flashed glass is glass coloured on the surface only.

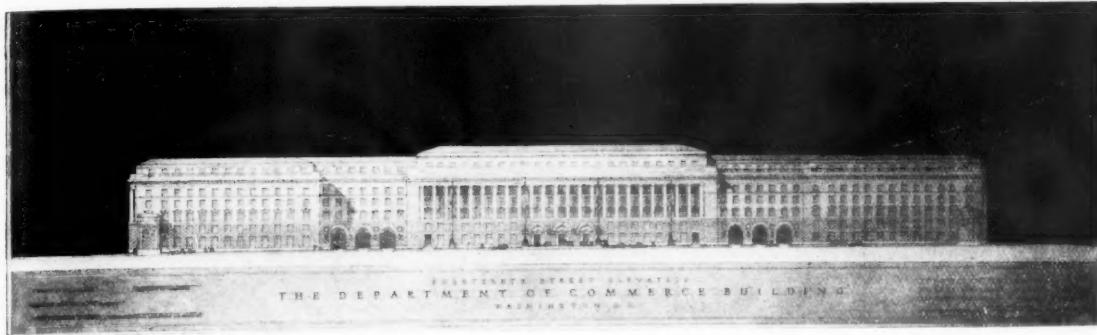
In a written communication Mr. Percy J. Waldram adds: Mr. Maurice Webb refers to the well-known phenomenon of "solarisation" in Vita glass and other glasses transparent to those ultra-violet rays which are medically valuable, and suggests that a glass which will, after two years' exposure to daylight, lose part of this transparency and become opaque to *some* of such rays must be rather useless. But is it not a fact that complete and permanent solarisation can be induced in Vita or any similar glass by a short exposure to light from a mercury vapour lamp? If so, obviously an architect would only use a glass which, after such "seasoning," was still capable of transmitting such parts of the spectrum as the doctors require.

It is our duty as architects to point out aesthetic and structural defects in the new glass; but we must beware of injuring by over criticism what is after all a very great triumph of British science.



The Triangle: The Federal Buildings Programme in Washington, D.C.

BY FRANK P. CHAMBERS, M.A. (CANTAB), COMMONWEALTH FUND FELLOW IN ARCHITECTURE, HARVARD UNIVERSITY.



PROPOSED DEPARTMENT OF COMMERCE BUILDING

The original plan of Major L'Enfant for the City of Washington in 1792 provides for two major axes at right-angles—one, the Mall, with the Capitol as its head, the other being the axis with the White House at its head. These two axes, with the present Pennsylvania Avenue as hypotenuse, form an immense area, familiarly known as the Triangle, which is to be the site of the most important city planning project since the city was first laid out, a project whose obvious parallel in the past is perhaps the original Whitehall.

First among the influences at work behind the project has been the scandal of the uncontrolled development of the city at the end of the nineteenth century. Commissions, such as the McMillan Commission of 1901-2, recommended, in consequence, the rehabilitation of the L'Enfant plan, which had been allowed to lapse during that period. It was on this Commission that McKim, Burnham, St. Gaudens and Olmstead served. Then in 1919 Congress established a Public Buildings Commission for the allocation of sites for Government use and for the control and allotment of space in owned or leased Government buildings in the district of Columbia. This Commission, together with the Treasury Department, under which the present Federal Building Programme is placed, the National Park and Planning Commission, and the National Fine Arts Commission in its advisory capacity, now determines the architectural destinies of the city.

Then next, the growth of certain Government departments and bureaux, aggravated by the sudden requirements of the war, has necessitated rebuilding on a large scale. A great number of the offices in question are now scattered over the District, indifferently and inconveniently housed, and often paying rent to private property owners. For instance, the total rental paid to these owners in 1926 was nearly a million dollars.

Finally, the growing consciousness of the American people of their national prestige has seemed to demand some tangible expression at this time. Various organisations, official and unofficial, among them the American Institute of Architects, the National Commission of Fine Arts, the Parks and Planning Commission, and the Treasury Department itself, proposed the concentration of these required offices on a single site and selected the Triangle for the purpose. Simultaneously, the development of the Mall, the building of the War Memorial at Arlington, and the bridge over the Potomac were being considered as components of a vast architectural plan. In the present Secretary of the Treasury, Mr. Andrew W. Mellon, has been found a man of taste and influence, equal to the occasion, and there seems to be every promise that these ambitious projects will be realised.

On 25 May 1926, Congress passed an Act authorising the Secretary of the Treasury to acquire the necessary land and "to cause to be constructed thereon" the proposed buildings. The same Act provided for "the employment of advisory technical service," and the present Board of Consultants was thereby appointed. The names of the members of this Board, many of whom are known to us in England, are Edward H. Bennett (chairman), Louis Ayres, Arthur Brown, Junr., William B. Delano, Milton B. Medary, Junr., and Louis A. Simon. Mr. James A. Whetmore is acting supervising architect. Under the direction of this Board, the general composition of the buildings has been evolved.

In the report of the Secretary of the Treasury for the year ending 30 June 1927, appears a description of the Triangle, the following passage being an extract:

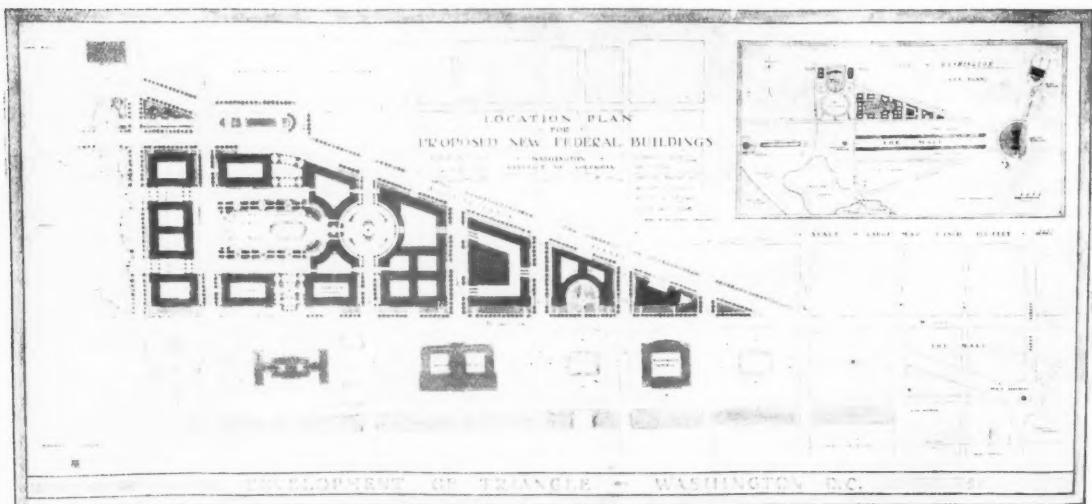
"In approaching the subject of new Federal buildings for Washington, the department has not failed to note the opinions of those who see in such a project a great opportunity for casting aside the established precedent in

architectural forms and following in the wake of those who see progress only in the employment of new forms and

buildings erected for the Federal Government, and the spirit of this is sufficiently marked to have become a



PROPOSED INTERNAL REVENUE BUILDING



THE TRIANGLE: PLAN SHOWING PROPOSED DEVELOPMENT

new relationships of forms; but for the national capital there are other considerations involved. The early builders have set a very definite stamp on the character of

tradition which may not be lightly disregarded. It seems eminently fitting that the United States Government should cherish its national inheritance and should

perpetuate in the national capital the general spirit of the architectural character expressed in the best of the earlier Government buildings in Washington. With this in view, the new buildings will take on the character of the eighteenth century adaptation of the classic style, seeking to maintain such a measure of difference in the treatment of the several buildings as may be necessary to obtain a unified individuality free from the monotony of a stereotyped repetition."

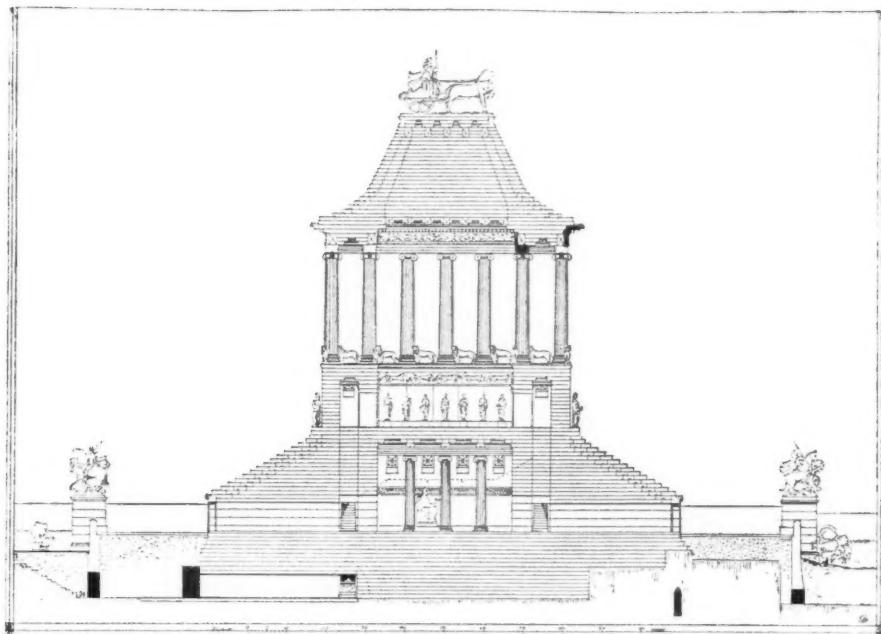
The ultimate cost of the scheme may reach \$200,000,000. This sum is a conjecture rather than an estimate, and obviously it would be expanded over a period of years. Up to date Congress has authorised the expenditure of

\$50,000,000 for buildings and land within the district of Columbia, and an additional authorisation of not to exceed \$25,000,000 for land. The total area of the Triangle is about seventy-four acres, more than twice the size of the original Whitehall. The personnel housed will be about 25,000.

Excavations for the Department of Commerce Building and the Internal Revenue Building have recently been begun, and are now well under way. The Archives Building has been authorised but no detailed studies or contract drawings have as yet been made. The illustrations show these particular buildings as well as the triangle as a whole, and its relation to the plan of the city.

The Order of the Mausoleum

BY ERNEST J. MAGER

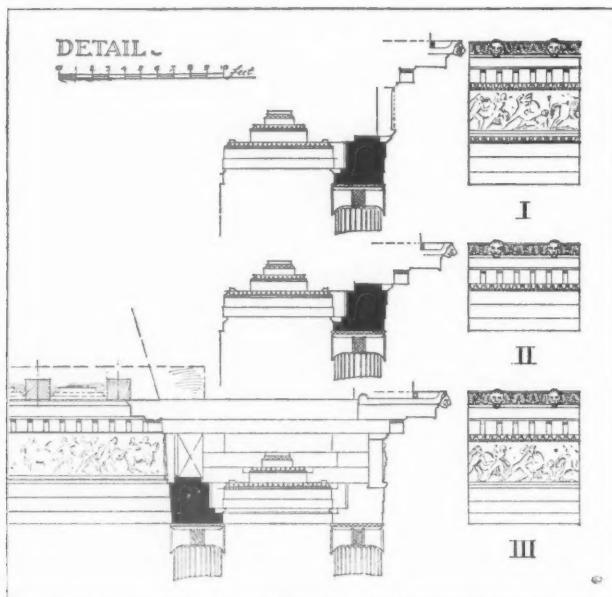


SKETCH SHOWING SECTION OF THE MAUSOLEUM TAKEN FROM WEST TO EAST

In submitting these few remarks I have introduced a suggestive sketch showing a section of the Mausoleum taken from west to east. It indicates a method of reading Pliny's description and of finding positions for fragments and sculptures which exist. The height is indicated as including the "whole work" reading from the level of the paving beneath the stone which closed the entrance

to the tomb. Stevenson's method of arranging the thirty-six columns has been adopted.

The purpose of introducing this drawing is to show how the fragments of architrave which exist may have come from an inner row of columns and may not have belonged to the outer Order, and were this so, a variation of the entablature, as given in detail in Fig. 1, might be suggested.



SUGGESTED VARIATION OF ENTABLATURE

Fig. 1 indicates the first restoration of the entablature based on existing fragments. It yields an entablature of great height in proportion to the height of the whole Order, and the arrangement has frequently been criticised on this account. The section is not very pleasing in its outline; the frieze appears to be pushed forward by the egg and tongue which fills in the rebate in the architrave.

In 1904, Wiegand and Schrader came to a conclusion that in the case of the temple of Priene the frieze member was omitted. A similar view was taken regarding the Mausoleum entablature; the result is given in Fig. 2. I would venture to say that in many ways this section does not compare favourably with the reduced Order of the temple of Priene. The reduced height of the entablature marks to a further degree the extraordinary projection of the cornice. A deeper entablature such as Fig. 1 would be more suggestive of strength.

In section Fig. 3, the fragments of architrave have been considered as belonging to inner columns, and a slightly different section for the outer architrave has been assumed, rebated for the Amazon frieze. The egg and tongue beneath the frieze can now be omitted, the entablature of the Order is accordingly simplified, and reduced both in height and projection. The resulting section may possibly be of some interest, for it shows a method of retaining the beautiful Amazon frieze and at the same time bringing about a reduction in the general dimensions of the entablature given in Fig. 1.

Review

LÉONARD DE VINCI, *L'artiste et l'homme*. By Osvald Sirén. Translated into French by Jean Buhot. 3 vols., including 2 of plates. 40. Paris and Bruxelles, 1928. [G. van Oest.] £4 10s.

There are three volumes of this admirable work, of which the first is biographical, analytical and descriptive. It is just sufficiently long to give one a complete and clear view of the achievement of Leonardo. The author emphasises his superlative draughtsmanship which appears in all the paintings, sculpture and decorations. He gives an illuminating study of the perspective scheme of the Last Supper at Milan; also notes on a very up-to-date town-planning project, with sunk roads for fast traffic and invisible canals for goods delivery. He reproduces sketches by Leonardo for engines of war, of which one resembles slightly a modern tank. He tells us of the painter's learning in geology, physics, botany, anatomy and astronomy, and lastly presents finely Leonardo's amazing personality with the double capacity of artist and man of science. The second and third volumes contain photographic reproductions—wisely selected—of paintings, statues, building and a number of sketches. Architects will enjoy looking at them and members of the R.I.B.A. will discover a kind of affinity in the sketches with those of Alfred Stevens we have recently acquired.

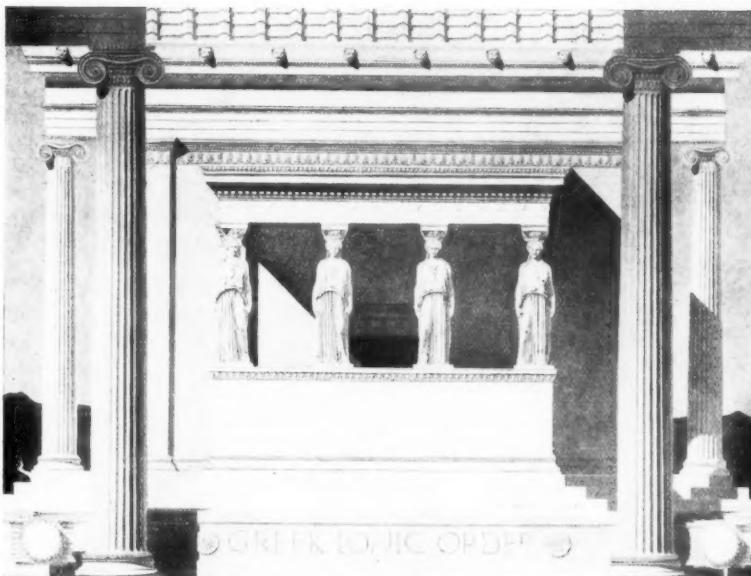
A. S. G. B.

Schools of Architecture

FOURTH SERIES

I.—School of Architecture, Edinburgh College of Art

BY J. BEGG [F.]



STAGE ONE: STUDY IN IONIC ORDER (GREEK). By Mrs. Helen M. Bryce

The Edinburgh College of Art claims to be one of the oldest institutions of the kind in the United Kingdom, having been founded some eight years before the London Royal Academy came into existence. The "Architecture Section," now the School of Architecture, owes its origin to the establishment in 1891 (chiefly at the instigation of the late Sir Rowand Anderson) of the "School of Applied Art," in the same building, but otherwise it is only informally associated with the School of Art. In 1909 the Edinburgh College of Art, in its present form, took up its quarters in the fine new building it now occupies.

The School of Architecture has long been a "Recognised School" up to the Intermediate standard; since 1925 it has been recognised up to the Final standard.

As is usual in the case of schools associated with colleges and schools of art, its functions are twofold. It is concerned primarily with the training of young men and women for the profession of architect, and secondarily with the giving each year of a condensed course in architecture to the general art students, as an integral part in their work for the College diplomas in drawing and painting, applied art and sculpture.

In its primary function the School recognises the importance of maintaining the closest possible touch with the needs of the architectural profession both in the British Empire and also locally. As these needs vary considerably between the wider and narrower spheres thus involved, it will readily be seen that the task of reconciling divergent—and in some measure even almost incompatible—interests is none of the easiest. This will be understood when it is pointed out that a large section of the local profession clings to the old-fashioned system of "apprenticeship." The School is accordingly divided into three sections, namely:—

(1) The morning school (8 to 10 a.m. on 6 days per week).

(2) The day school (9.30 a.m. to 5 p.m. on 5 days per week).

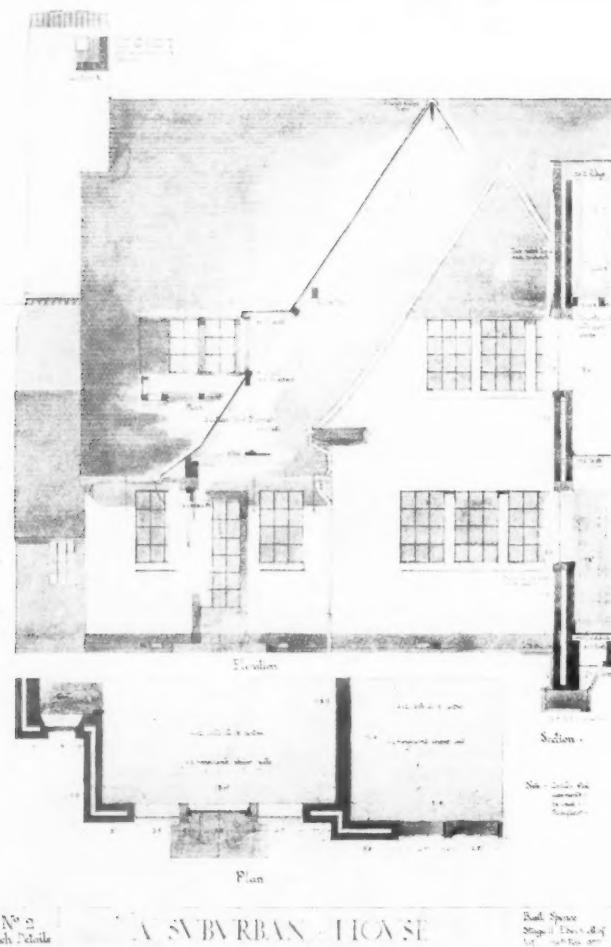
(3) The evening school (7 to 9 p.m. on 5 evenings per week, with an instructor on two evenings).

Courses of lectures on history of architecture, hygiene, building construction, professional practice, architectural composition, etc., are also given, the majority of these at such hours of the morning or late after-

noon as to enable them to be attended by students of both morning and day schools.

The more purely "engineering" subjects are taught in the Heriot-Watt Technical College, the entire course

Seventy students are at present taking Intermediate and Final exempting courses. The remainder are those whose general educational qualifications do not permit of their admission to an exempting course; of these a consider-



STAGE TWO : HALF-INCH DETAIL OF A SUBURBAN HOUSE. BY Basil Spence

being controlled by a joint board of studies, on which the staffs of both institutions are represented.

The conditions which apply in the School's composite clientèle may be gauged by noting the numbers attending the morning and day sections respectively. The total roll numbers over 90. The roll of the morning school numbers between 50 and 60, that of the day school just 30.

able proportion will eventually appear at the ordinary Institute examinations.

Comparatively few students (and these mostly ladies) are booked to take the whole course in the day school. The majority prefer to take advantage of the concession by which, subject to a minimum attendance of three years (except in special cases) in the day school, the diploma

may be taken by "part-time" study. This concession goes a long way towards disarming the advocates of the "apprenticeship system" in what might otherwise prove to be serious opposition to the School and its aims and methods.

Care is taken to co-ordinate the School's two main

1. By three stages (years) in the day school.
2. By one stage (year) in the day school and not less than three years in the morning school.
3. By five years (three stages) in the morning school, provided always that morning school attendance is accompanied by attendance in an approved office.



STAGE THREE: A VILLAGE CHURCH. By Robert H. Matthew

sections. The day school practically sets the standard ; the morning school does the same work, spread over a longer period. We do not speak of "years" but of "stages"; each of the five stages means a year in the day school, *or its equivalent*. In the morning school it is found that a good student (generally by taking advantage of the evening school also) can cover two stages in three years' work.

The Certificate, carrying Intermediate Exemption, can be gained in three ways:—

The Diploma, carrying Final Exemption (subject to the usual conditions), may thereafter be gained :—

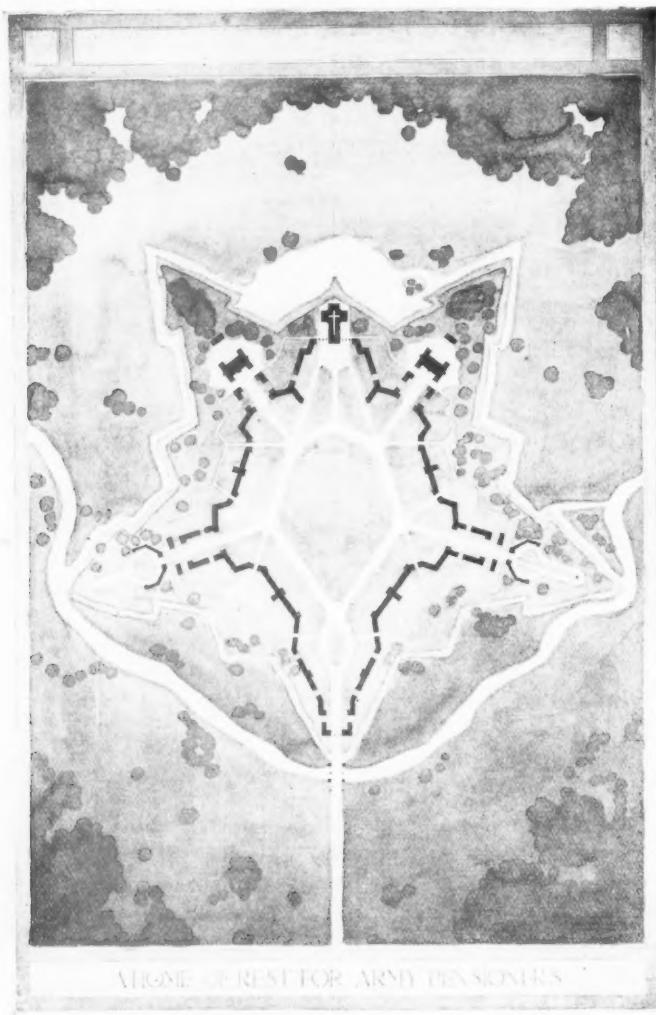
1 and 2. By two further years in the day school.

3. By three years in the day school, or, with the special consent of the Board of Architectural Education, by two years only in the day school.

A special feature of the training which the young architect receives at this School is made possible by the close touch which is fostered between the various sections of the College of Art. He is given the advantage

of instruction in drawing from the antique and the life, in modelling, in the rudiments of pattern-design and lettering, stained glass, etc., not only by members of the archi-

School, to visit it at intervals, and to give the students the benefit of advice and criticism on matters of which they may have special experience.



STAGE FOUR: LAY-OUT PLAN OF A HOME OF REST FOR ARMY PENSIONERS. By Leslie G. Thomson

TECTURAL STAFF, but of the staffs of each of the other sections respectively.

Further special features are:—

A. The organising of visits to workshops and works in progress, for which Edinburgh affords ample opportunity. In this connection it may be mentioned that local architects are encouraged to interest themselves in the

B. The Saturday afternoon sketching and measuring class. On about a dozen Saturdays during the summer the students are taken in classes by experienced instructors to examples of old work, of which there is abundance both in the town and in the surrounding districts. These classes are not compulsory, but are very popular; and it is found that the really earnest students, having been intro-

duced to the idea of sketching and measuring in the class, tend to branch off "on their own," to find their own subjects, and to depend on their own resources in dealing with them; indeed they are encouraged to do so. Considerable keenness is shown in getting together good displays for the annual exhibition of measuring, sketching and holiday work held in the exhibition gallery every November.

C. The School has always paid special attention to freehand drawing from the round, for which the College possesses a unique collection of casts both of antique sculpture and of architectural details.

D. The social side of the College life is fully entered into by the students of architecture, and there is every opportunity for the free interchange of ideas with students of other sides of art.

E. Students are encouraged to join the local Allied Society (Edinburgh Architectural Association), which has a particularly active "Associates' Section," holding debates, lectures, sketching competitions, etc.

In short, the conditions of this School are favourable to a very high standard of training. The fees are low, but, the College being a municipal institution, it is possible to maintain a scale of accommodation and equipment that leaves little to be desired.

As to methods of teaching, no claim is made to any special originality in this respect. The School has long had a tradition for sound pure-line draughtsmanship. Without in any way betraying that tradition an effort has been made during recent years to infuse more interest and brightness into the students' work, not, it is thought, without success. The old laborious delineation of "the Orders" has given place to the study of the classics by means of "compositions" and "applications." Stu-

dents are early introduced to the charms of "rendering." The mere copying from books and plates, on which years used to be spent, is now replaced by serious essays in the design of buildings, both by "quick-time" and more elaborately finished studies, these being carefully graded.

The study of mediaeval work, which at one time had practically died out of the School, has been restored to its position as an integral part of the student's work. Though the opportunities for the use of Gothic in modern practice may be extremely limited, it is now accepted that no phase of work has so much to teach the student; the feeling for the setting of stone on stone and stone by stone; the feeling for scale, for material and for craftsmanship—these can be acquired by the proper appreciation of mediaeval motives more surely than by the study of most other historic periods. It is also felt that a change of outlook, at the appropriate stage, may have a beneficial effect in teaching a due subordination of manner to matter, of prejudices to principles. A course in Gothic is therefore made part of the work of the second stage, and students are urged to reinforce this by simultaneous measuring and sketching.

In design, therefore, the School aims not at the forming of the student's style, but rather at so equipping him with a grammar and vocabulary, a set of first principles and a full store of knowledge, that he may eventually evolve "style" for himself, provided he have it in him to do so.

The School is staffed exclusively by practising architects. This means that it has no whole-time member of staff. It is believed, however, that any disadvantages resulting from this—and there are admittedly some—are more than compensated for by the closer touch so obtained with the ordinary professional life of Edinburgh.

Contract*

BY W. E. WATSON [F.], BARRISTER-AT-LAW.

The building contractor to-day carries on an extremely complicated business with many ramifications, and conditions are such that against strong competition he has to scrutinise closely every possible avenue of leakage in his legitimate profit. He is bound to do this in duty to his shareholders. On the other hand, the building owner claims, and necessarily claims, that he is to be free at any time during the progress of the works, or at least after tenders are received, to change his mind as often as he pleases on any matter and ultimately to have a building if he chooses quite diverse in character or detail from the original conception of the architect. To reconcile these very different notions is the architect's province, and it requires a degree of business acumen probably greater than was required in past years. Among the many problems which were with our grandfathers, are still with us, and will probably be with our grandchildren, is the matter of contract conditions, and it would be counsel of

perfection to draft something sufficiently beyond reproach to be absolutely acceptable to all parties. The two parties chiefly concerned are the building owner and the contractor, but the architect stands between in his various capacities, and while endeavouring to make an honest living he may find himself involved in matters beyond his legitimate province, with disastrous results not only to his honest livelihood but also with detriment to his reputation in the eye of the public.

An architect under contract to supervise work is entitled to leave details, in his discretion, to the clerk of works, but he is nevertheless personally responsible for the carrying to completion of his design; a period of retentio... for moneys is common in most forms of contract and the money is retained as security against the contractor to ensure that he will make good any defects which may arise during those few months; if the contractor makes good those defects and is given a final certificate he goes free. Supposing, however, defects appear after these incidents, what remedy has the building owner if any? The answer to that question that the architect's responsibility con-

* The second of a series of lectures on Architectural Practice delivered at the Royal Institute of British Architects on Thursday, 22 November 1928.

tinues under the Statute of Limitations for six years from the date of the act of negligence may possibly be refuted, but as a general proposition it can be accepted and is so far the ruling of King's Bench Division, against which there has not been any appeal. Of course, this proposition is entirely apart from any question of fraud, which would place the matter in quite a different category. My purpose in mentioning this incident of a normal contract is merely to illustrate or demonstrate the importance of considering the form of contract which the prudent architect will place before the parties for signature; and further to show the grave responsibility an architect may have to shoulder where he is opposed by a disingenuous contractor.

Mere length of a contract document does not necessarily connote excellence, in fact it may generally be said that the greater the length of the document the more obscurities it may contain, whereas the very short, crisp and pungent form which merely gives date, names of parties, contract subject, consideration therefor, and time clause, with a short clause stating that differences are to be settled in accordance with the law of England having regard to the provisions of the Arbitration statutes might be more determinate in its covenants than the longer document, because wherever a dispute arose custom of the professions or trades involved would be the determining factors as against the theory that the duty of the Courts or of an Arbitrator is to construe a document having strict regard to the legal meaning of the covenants and the language in which they are expressed.

There may be said to be two different conceptions of what a contract form should be; first, it might be said the contract form includes conditions general to all building projects so that the specification will only give such special conditions as apply to the particular contract. On the other hand, a contract form may include all general and special conditions so that the specification need only recite that the general conditions are those included in the contract form. A definite decision as to which of these two classes is to be adopted would no doubt save much obscurity now prevalent and prevent the very frequent comment that if the detail is not to be found in the conditions of contract it will be found in the conditions of specification. This obscurity is one which should be avoided, for it must be remembered that the contractor when tendering has only the bills of quantity or the specification. Another obscurity which should be avoided arises in the more consequential projects where the bills of quantity are supplemented by a specification and here again it is only equitable that the specification should not call for an item of a more costly character than that allowed for in the quantities.

It is essential in even the simplest form of contract to state the consideration or amount of money which the contractor is to receive; the method of payment might just as conveniently be detailed in the quantity or specification conditions, because all the documents generally go to complete the actual contract between the parties. A similar comment might apply to many of the conditions in the Institute Form of Contract, therefore it might be reasonable to say that the Institute form consists of the

Articles of Agreement, which give date, identification of parties, description and situation of works, identification of architect and documents, consideration, agreement to perform works. Then before the signatures comes a clause embodying the thirty-two conditions as part of the contract. To have a form agreed upon by the builders and by the architects is therefore a counsel of perfection; it is desirable to have this so that a code of interpretation by the Courts may gradually arise and each party will then know what certain phrases truly mean; this state of affairs has already been reached upon the 1909 form, and though it is generally agreed that revision is desirable its general principles are sufficiently logical to be adhered to. It is, however, the duty of every architect to consider for himself what principles of contract he will follow, because it is he, and he only, who owes a duty to his employer in contract and to the builder in equity in the individual case, and to accept a form by whomsoever it is published without consideration of the possible consequences is mere indiscretion. He should be thoroughly acquainted with the provisions and conditions usually required in the particular class of contract and without having pretence to a specialised legal knowledge be in a position to advise the building owner what provisions are desirable and necessary.

In municipal contracts it has been customary to make the architect or engineer who is in the employ of the building owner arbitrator without further power of appeal, and the Courts have ruled that in such a case where the fact is known to the builder when he tenders he has normally no appeal unless it can be shown that the official has by his conduct proved himself unworthy to adjudicate. This unworthiness usually arises in the form of bias or prejudice shown in some form or another, and the Courts will give relief in such a case. It is, however, only fair to say that the better type of official to-day, following opinions expressed in recent cases, is just as anxious to have a third party to settle differences as is the average contractor, and architectural practice has followed in the same direction in America and in Scotland.

In the latter country the national building code provides that "The architect shall be the sole judge of the quality of materials and workmanship and of the manner of carrying out the work and all orders and decisions of the architect upon such questions shall be obeyed by the contractor who shall not be entitled to stop the work on any account . . . but the contractor shall be entitled to submit to the arbiter any claim in respect of work done or expense incurred in implementing such decisions or orders given by the architect." Whether opinion in England will follow is a matter of conjecture. It has been said that if arbitration is permitted upon all matters, the architect will lose control and direction of the works; on the other hand, in practically all commercial matters, there is some appeal beyond one party or his agent, and even in our English amusements it is difficult to conceive a well-organised game under a referee with only limited powers. The architect has a right to make variations in his design given to him by the Institute Conditions of Engagement, which say "That he is empowered to make such deviations, alterations, additions and omissions as he may reasonably consider desirable in the client's

interests in carrying out the works provided that no material addition to the cost of the contract is caused thereby." And, further, he has authority to give orders necessitated in the client's interests by constructional emergencies. Therefore, before a drawing showing variations involving extra cost is sent to the builder the architect should in theory obtain authority for the extra expenditure from the client; on matters such as these no doubt the builder would be paid extra. The question would be one of degree; but, on the other hand, the architect may vary his design by way of improvement as the building grows in such a manner as unconsciously to increase the cost beyond the particulars tendered upon. The builder having authority by way of plan or detail will carry out the amendment and in due time the account stage will be reached. The claim for extra arises, the architect in his discretion may pass it, but if he does not, is it not equitable to have an appeal to another qualified mind fresh to the subject, it being remembered that other circumstances not prevailing the costs would follow the event? The same analogy might equally be applied to questions of material.

The situation as I conceive it is that the architect is during the earlier stages of the contract acting as the agent of the employer paid by him to look closely to his interest, and it is only human nature to cultivate this duty to the exclusion of that independent and judicial mind which must of necessity characterise the arbitrator.

Further, if the matter goes in ordinary course to an independent person to adjudicate upon, the employer is not denied the valuable evidence of the architect as a witness, which he otherwise might have denied to him. I apologise for dwelling, probably, at too great length on this condition, but round it revolve the fundamentals of the whole contract document.

In dealing with conditions of contract whether expressed in the contract document itself, in the bill of quantities, or in the specification, one must remember there are many forms of contract, and in a short paper one can only deal briefly. Therefore, ignoring the building agreement, the prime cost contract, the schedule contract and others, let us examine the conditions of the usual lump sum contract as sanctioned by the Royal Institute.

It is composed of thirty-two clauses, and in all but three of them the architect is named as having duties or responsibilities cast upon him. Failure to perform them adequately or to perform them with a perverted zeal lays him open to attack for negligence. He first has a responsibility, which is well defined by the laws of agency within the restrictions of the conditions of his engagement. His duties as agent do not arise while he is merely employed as a designer; they begin when he is instructed to invite tenders upon behalf of the building owner, and they continue throughout the progress of the works until he finally certifies; overlapping the latter part of this period he may also have to exercise his quasi judicial function as arbitrator. As agent he may have to express his satisfaction or dissatisfaction, and he may be called upon to certify not only for payment, but also against payment. Among the most important of his duties is that of certifying a date from which penalties might have to run, or alternatively to certify in proper

form extensions of time; this is frequently not done during the progress of the works, but left to the end and merely recorded as a set off against claims for payment. That such procedure is fully recognised when the works proceed with good accord on both sides cannot be denied, but if litigation finally comes it may be that the failure of the architect to certify at the proper time may give the contractor a strong claim against the enforcement of the penalty clause in any form, thereby raising an unfortunate issue as between the building owner and the architect.

Orders for extra works are to be signified by drawing or in writing; extras may be described as works not expressly or impliedly included in the original contract, and not therefore coming under the provisions of Clause 4, which require the contractor to provide everything necessary for the proper execution of the works as originally estimated for. Clause No. 13 provides for valuation of such extras and it would seem to give an implied power to the architect to define what are extras, with power of appeal to an arbitrator, as provided for in the ultimate clause of the contract form. It may, however, be that works ordered may by time or character not be extras at all as regards the contract, but entirely new works for which a reasonable rate of profit can be charged in addition to costs for labour and material. At any rate, suffice it to say that the prudent architect will consider the point when he issues the order, or, it may be, the drawing.

It sometimes happens that without the immediate knowledge of the architect the employer himself gives variation orders, which may be by way of extras, and they are sometimes the subject of a good deal of heartburning when the account stage comes. It is obvious that they should be confirmed by the architect, not only to the builder, but also to the employer as early as possible or given in such a way that there can be no equivocation as to their terms when the account stage is reached or it may be that they lie so far outside the anticipations of the contract as to set up a semblance of independent contract which will imply an intention to pay a reasonable sum, and give an easy entry for the pernicious day-work sheet, with all the difficulties of checking and scrutinising.

Clause 17 provides for the making good of defects which may appear within the stipulated period of retention moneys arising from, in the opinion of the architect, materials not in accordance with the contract provisions. This really gives a very restricted power to the architect, for it is his duty to see that the materials and workmanship are in accordance with the contract provisions as the work proceeds; therefore, the longer the list of defects the greater is the indictment against the architect for not properly supervising. Of course, there may be defects which are latent and not patent, and do not develop till some time has elapsed, but the power is restricted to real defects or to wilful departure from the contract provisions. Due notice to execute the repairs must be given to the contractor, and if he defaults provision is made for the repairs to be done by another builder, creating, it may be, a debt against the original contractor. It is when action is brought to recover this debt that the architect's performance of his duty is scrutinised with

considerable exactitude, having regard to the extreme limitations of Clause 17. For instance, if the defects appeared before completion they could not equitably be scheduled under this clause because Clause 7 provides that the materials and workmanship are required to be as specified, and if required the contractor is to furnish to the architect vouchers to prove this, so it remains that the architect is employed not only to design but also to supervise the structure during its erection. For instance (*Jameson v. Simon*, 1899, I.F. 1211.) An architect was employed on the usual terms to plan and supervise a house costing £996. The contract was completed, the architect was paid. The owner took occupation, and soon afterwards dry rot appeared, whereupon he had the cement floor of the offices taken up and discovered that the bottoming of the floor had not been executed as per contract; it was found to consist of miscellaneous rubbish. In evidence it was shown that the architect visited about once a week, but he never inspected the bottoming before the cement was laid down, and without inspecting it gave orders to the plasterer to proceed with the work of the floor. The architect in defence pleaded that his duty was merely to give general supervision, and if the employer wanted a constant and detailed supervision he should have engaged a clerk of works. The Court held that the architect's duty was to give reasonable supervision, which was such as to enable him to certify that the work of the contractor had been executed according to contract, and that having failed to give that he was liable in damages to the employer on account of work which he had passed, but which, in fact, did not conform with the contract provisions. Similar ideas prevail in French law, where default of this kind is framed as in a manner making the architect an accomplice of the builder in cheating the employer.

The architect has an important function to perform under Clause 24, which is marginated as "Damages for non-Completion," because he has to certify in writing that the works could reasonably have been completed by a certain date. It is important to observe that this clause empowers the employer to deduct an amount for ascertained and liquidated damages, thereby making the issue as regards money entirely between the two parties to the contract, but the certificate itself of face value equivalent to the amount due irrespective of damages should be issued and endorsed to the effect that it is issued having regard to another of which the parties have each been given a copy and due notice. In the issuing of these certificates there are two notions to be considered: first, that the architect is acting as the agent of the employer, any appeal being provided for by the arbitration clause. The second is that the architect is acting in a quasi judicial capacity as arbitrator, which requires that he should dissociate himself from all conceptions of agency and apply himself to an entirely new and unprejudiced view of the whole matter. For an architect who has been through the rough and tumble of a job probably over an extended period and having probably castigated the builders for matters for which he deemed them entirely responsible to the exclusion of his own nominated sub-contractors, it must be very difficult to approach the matter with the unbiassed and unprejudiced mind which should characterise one who presumes

to arbitrate fairly between the parties. No doubt whatsoever can exist that the amicable settlement is most desirable, but if not obtainable, and the architect intends to exercise himself in the quasi judicial capacity he will be well advised not to discuss the matter with one party in the absence of the other at all, but to give a due notice of hearing to both, and proceed with all the formality of an arbitration under the statute. To recompense him for the expense of this he will have no compensation, as it lies within his duty to the parties. If an appeal should be made from his decision on the ground that the parties are not bound by it, it seems doubtful if at the later hearing his evidence could not be objected to on the ground that he has already adjudicated. At any rate, the party against whom he decides will probably not be anxious to call him as a witness, and this party may be his employer. On the other hand, accepting the notion that the architect certified as agent only, he is thereby free to discuss the matter with one party only, and to certify the date of the possible completion merely as a statement of opinion, leaving the contractor, if he be so minded, to his ultimate remedy under the arbitration clause. Whichever notion is followed, it would be prudent for the architect to make careful note of all the factors governing his statement, so that they can be referred to should the matter come to trial. For instance, it may be that the architect in his recollection makes allowance of thirty days for exceptionally inclement weather, whereas the clerk of works' weekly reports show that the work was actually stopped for forty days; or it may even be that the Government weather observations carefully scanned go to show that the architect was at the least ungenerous in his allowances; for it cannot be too strongly emphasised that an arbitrator coming with an entirely unbiassed mind to the matter may give a greater regard to external evidence if uncontroverted than to the evidence of witnesses who incline to see the case somewhat through the desires of their respective employers.

Another important factor in estimating the responsibility for delays is the architect's failure to provide details to the contractor within the stipulated number of days laid down in Clause 2. If it can be shown that the contractor was delayed by the architect's failure to provide details or give instructions the onus for delay may be upon the architect himself unless he can show that the employer withheld instructions necessary to facilitate progress; in either case the responsibility need not necessarily be upon the builder, and to penalise him might be unfair.

As a general rule it would be counsel of perfection to say that if a definite incident arises in the course of a contract which permits of a certificate being given for an extension of time the architect should give it. A strike extending over a definite period would be a good instance, or a definite delay in the delivery of necessary items, for which the contractor could not be held responsible, and to the definitely ascertainable period the contractor is probably entitled to an addition for disorganisation of his labour. On the other hand, the architect may certify that the strike lasted from one date to another, but that the works were only stopped for a shorter period; whichever way it may be the architect will be wise to certify while the facts are fresh in the memory, because it gives the con-

tractor opportunity to put his counter-claim on the file at the time of the incident, and it further notifies him that he has a definite remaining time within which to complete his contract. This power to certify may be exercised on more than one occasion over a large contract, and it keeps the end of the road at an undisputed distance. Of course, the obverse also obtains, and the remedy of the contractor may, firstly, be to ask for extensions when they are occasioned, or alternatively, before the arbitration tribunal to seek to nullify the penalty clause.

The question of extras has some bearing upon the penalty clause. It is provided by Clause 13 that "no variation shall vitiate the contract." It may be, say, a contract for £10,000; within a year extras totalling £20,000 are ordered. Is the contractor bound to complete at the penalty rates? He might say: If I do £10,000 in one year, I require two and a half or three years to do £30,000. And that seems, in a sense, fair. On the other hand, the employer says, had he known this, he would have employed an independent contractor, which is also reasonable. The answer to the question might be that it is a matter of degree; but in such a case, as regards penalty, the right to enforce it, apart from agreement, may be gone on the ground of interference and prevention, or by waiver. (Dodd *v.* Churton, 1897.) As a general rule to enforce a penalty the contractor should have had absolute freedom to arrange his own programme of procedure, and should have possession of the site, details and all particulars immediately upon demand.

Reference has been made to the architect's certificate as regards extension of time. He also has to certify in other important matters, and it is a common defence to an action to say that the required certificate has not yet been issued, therefore no duty can arise, its issue being a condition precedent to a right of action. As a certifier, the architect should be in possession of a power to certify or, in other words, he must not exceed his jurisdiction; nor can he certify when the particular contract matters are already disposed of, except by consent. It is settled law that he is liable to both parties if he commits any dishonest or fraudulent act, and collusion with the employer may amount to such; the intention will be presumed from his acts, and upon proof of a single fraudulent act the court may enquire into the whole series of transactions, even though they may extend over several years. Thus, knowingly providing inadequate or inaccurate specifications or quantities may amount to such. This disqualification is not merely temporary, it may apply to the whole series of transactions, and the late Lord Justice Moulton said (Roberts *v.* Hickman, 1910) misconduct on the part of the architect in allowing himself to receive instructions from one of the parties and to act in that party's interest, goes to the status of the architect. It makes him incapacitated to act as judge, and it is obvious that that affects his decisions on every point, and not only on the point on which you can show that he has taken a direction from either side; he is no longer fit to be a judge . . . that taints the whole of his acts and makes them invalid to whatever subsequent matter his decision is directed.

Further, a certifier may be disqualified by having some interest in the subject-matter of the contract, which ought to have been disclosed to the parties. For

instance, payments were agreed to be made on A.'s certificate; A. was related to and largely indebted to the employer, and of this the contractor had no knowledge; it was held that these facts should have been disclosed, and that having regard to these facts, the certificate clause was of no effect.

In another case, an architect, unknown to the builder and, previous to the signing of the contract, gave an assurance to the employer, but declined to bind himself by guarantee, that the cost of a building would not exceed a certain amount, upon which assurance the employer signed the contract; it was held, without alleging fraud, the architect's decision was not binding upon the builder if there was the smallest circumstance which might unfairly bias his judgment unknown to the builder. (Kemp *v.* Rose, 1 Giff. 258, 1858.) The architect, in certifying progress certificates, is not acting as an arbitrator in the true sense, but nevertheless the duty to decide impartially is upon him, and if the particular certificate covers anything in the nature of a special claim, and either of the parties requests a hearing upon the matter, he should give facility, therefore, to both sides. (Armstrong *v.* S. London Tram Co., 1890.)

The Institute form of contract is so framed that resort may be had to arbitration upon questions of certificate at any time, and need not be stayed until the completion or alleged completion, of the works, so that by giving facility for hearing parties the architect may avoid the more costly and cumbersome method of dealing with the claim.

Though a progress certificate is not by any means conclusive as between the parties and the final certificate is, still the progress certificate may be conclusive in some senses as it is the written expression of the opinion or judgment of a third person, and may act as an estoppel to prevent him changing his mind; further, it immediately creates a debt for its face value, and cannot be withdrawn. Further, it may *prima facie* be presumed not to be in excess of the amount due to the builder, and if, as is usual, its issue is a ministerial act (apart from fraud), the Court cannot remedy its terms; again, if the progress certificates are to be given at stated intervals when the work reaches certain stages, they may be found to be clothed with the attributes of finality as to degree of progress.

The certificate is to be taken at its face value, and it cannot be derogated from by a subsequent qualification, and thus, if the architect in his capacity as agent over certifies during progress, it may be that by the default of the builder, the owner is put to additional cost in completion, and action thereupon would lie against the architect in negligence; the moment, however, that he ceases to be agent and assumes judicial qualities, that right of action would not arise.

The quantity surveyor, in his normal capacity, may be described as a valuer of materials and workmanship, whether it be for interim certificate purposes or for final adjustment, and where no surveyor is named, in clause No. 13 these duties may devolve upon the architect; in his capacity to value he may not have all the qualities of a valuer, but he may have some, having regard to the notion that while an arbitration is to settle disputes which have arisen, a valuation is to prevent dispute

arising, and further to the theory that a valuer owes a duty to his employer, and may be sued in negligence. The architect in this capacity relies upon what he sees with his eyes, and by his own judgment and skill arrives at a sum due to the builder, whereas an arbitrator relies upon evidence adduced before him.

The jurisdiction of a certifier may be limited, and if he certifies beyond his power, it may be that the good and the bad portions are severable, in which case the good may stand; for instance, where the architect has no power to deduct liquidated damages for delays, the certificate will stand to its face value for work done if the details are given; but if it is a mere nett amount after deductions made, the whole certificate will be bad and *prima facie* may be set aside.

The architect offers his services as a person competent to perform the normal services which an employer might require of him, not only to design, but also to supervise and see his design translated into terms of building materials and workmanship; the degree of skill he must possess is such as might be exercised by his confrères in similar circumstances; these duties connote the approval or disapproval of many materials as well as workmanship. His approval is normally a condition precedent to a right to a claim for payment by the builder. A statutory authority, such as a local council, may be compelled to approve of plans if they are in accordance with the building laws of the district, but the architect is under no such disability; still, he must not be unreasonable in his demands, though he has a power to order removal of improper work. Thus, if materials are specified to comply with a particular standard or with particular tests, and it can be proved that they do so, power to require removal would be gone, and the onus is on the employer or his agent to apply such tests properly and fairly. Again, if the work is done, and might reasonably be seen by the architect during a certain visit, it would be inequitable to condemn it, say, two months later, by which time it has probably been built in or covered up. Thus refusal to approve might even verge upon fraud in a particular case. When it comes to matters of æsthetic taste, however, the architect is free to exercise any degree of disapproval, provided he does so without caprice and honestly, on the legal ground that standards of æsthetics cannot be judged or measured by a jury.

The Royal Institute form is frequently used as a contract document and set of conditions with the blanks merely filled in, but the note attached to the form says the document requires to be varied in each case to meet the special circumstances; in other words, it is a mere precedent to serve as a guide to the prudent architect in drawing up the actual document. Too much stress cannot be laid upon the desirability of drafting the added clauses in the clearest and most unequivocal language so that the parties are both bound by the clearest and most incisive wording and phrasing to express their intentions. Such care will be well spent and probably avoid litigation; but if, unfortunately, it does not, it will certainly have the effect of consolidating the issues and probably of materially shortening the case.

The Library

MODERN ARCHITECTURAL DETAILS. Published by The Architectural Press. 4°. Lond. 1928. 12s. 6d.

This publication consists of eighty loose plates in a stiff portfolio. Each subject is illustrated by working drawings and a photograph. This portfolio is, indeed, a collection of the useful frontispieces which have appeared in the *Architects' Journal*.

G. D. G. H.

BELLS THRO' THE AGES. By J. R. Nichols. 8°. Lond. 1928. [Chapman and Hall.] £1 1s.

This useful book deals with the early history and development of the use of bells, their founding, tuning and hanging. A chapter is devoted to the subject of Carillons.

The campanologist will find interesting matter dealing with change ringing and belfry rules. There is a chapter on lore and legends connected with bells.

The book is lavishly illustrated with illustrations, several of which deal with constructional and mechanical points.

G. D. G. H.

A GLIMPSE OF GREECE. By Edward Hutton. 8°. Lond. 1928. [Medici Society.] 18s.

A pleasantly discursive travel book, which will be of value both to those who seek a background and local colour for their mental picture of ancient Greek life, and also to those who intend to see Greece for themselves. It is plentifully illustrated with well-chosen photographs, and it provides the traveller not only with references to the history or legend of each famous site, but also with practical information and advice to help him on his way.

A. L. N. R.

LE CIMENT-ROI. Ob. sm. fo. Paris [1928]. [Librairie de la Construction Moderne.] 15s. 6d.

This is a portfolio of sixty plates illustrating fourteen recent French buildings in reinforced concrete. The selection covers a wide range of diverse types. Many of the examples may not commend themselves to British taste, but the inclusion of working drawings as well as very clear photographs gives the collection interest and value for purposes of reference.

A. L. N. R.

PUBLICATIONS RECEIVED

BUILDING CONSTRUCTION, PLAN DRAWING AND SURVEYING, in relation to fire insurance. By D. W. Wood. 8o. Lond. 1928. [Pitman.] 6s.

MODERN ELECTRICAL ILLUMINATION. By C. Sylvester and T. E. Ritchie. La. 8o. Lond. 1927. [Longmans, Green.] £2 2s.

HISTORY OF HITCHIN. By R. L. Hine. Vol. I. La. 8o. Lond. 1927. [Geo. Allen and Unwin.]

ART AND CRAFT OF STAINED GLASS. By E. W. Twining. Sm. 4o. Lond. 1928. [Pitman.] £2 2s.

CIVIL ENGINEERING SPECIFICATIONS AND QUANTITIES. By G. S. Coleman and G. M. Flood. 8o. Lond. 1926. [Longmans, Green.] 10s. 6d.

SURVEY OF LONDON. By the London County Council. Vol. X, Parish of St. Margaret, Westminster (part i), by G. Topham Forrest and M. H. Cox. Vol. XI, Parish of Chelsea (part iv). By W. H. Godfrey. 4o. Lond. 1926 and 1927. [Batsford.] £2 2s. per vol.

ENGLISH ARCHITECTURE IN A COUNTRY VILLAGE. By A. H. Plaisted. 8o. Lond. 1927. [Longmans, Green.] 2s.

Allied Societies

(*The attention of Members of Allied Societies is particularly called to this page.*)

Notices

ESSEX SOCIETY OF ARCHITECTS: WEST ESSEX CHAPTER.

The Executive Meeting of the Chapter is to be held at the Golden Lion Hotel, Romford, at 2.30 p.m. on 14 January, after attending the Luncheon of the Rotary Club of Romford at 1 p.m. at the same place, when the President of the Society will give an address, followed by a discussion.

The Annual Dinner will be held at the Old Chapter House, St. Paul's Churchyard, on Shrove Tuesday, 12 February, and will be preceded by a visit to the Carreras Factory and the Carpenters' Hall. Detailed announcements will be sent direct to Members.

S. PHILLIPS DALES [F.], Hon. Sec.

THE SOUTH WALES INSTITUTE OF ARCHITECTS CENTRAL (CARDIFF) BRANCH.

Arrangements are being made to hold the Annual Joint Prize Distribution of the South Wales Institute of Architects (Cardiff Branch) and the Welsh School of Architecture on Thursday, 31 January 1929, from 4.30 to 6.30 p.m., tea being provided from 4.30 to 5.30 p.m.

The annual smoking concert will be held on the same evening at the Dormie Café, Queen Street, commencing at 7.15 o'clock. Further particulars will be sent in due course.

Reports

ESSEX SOCIETY OF ARCHITECTS.

ANNUAL DINNER AT SOUTHEND

The Essex Society of Architects held their annual dinner on Thursday, 13 December 1928, at Garon's Banqueting Hall, Southend.

The President of the Society, Sir Charles A. Nicholson, Bart., presided. Among those who were present were the Bishop of Chelmsford (Rt. Rev. F. S. Guy Warman, D.D.), Mr. Walter Tapper, A.R.A., P.R.I.B.A., the Mayors of Southend and of Colchester, Mr. J. D. Drysdale, M.A., Mr. Ian MacAlister, M.A. (Secretary, R.I.B.A.), Mr. Duncan W. Clark (Chairman Colchester Chapter), Mr. F. Wykeham Chancellor, M.A. (Chairman Chelmsford Chapter), Captain D. H. Burles (Chairman Southend Chapter), Mr. J. J. Crowe (Chairman West Essex Chapter) and Mr. D. N. Martin-Kaye (Honorary Secretary of the Society).

After the loyal toast, the Chairman proposed the toast of the Institute. It was not necessary, he said, to explain what the Institute stood for. Every architect could now rely upon the support of his brother architects in any difficulty that might arise. They owed much to Mr. MacAlister, as to Mr. Martin-Kaye, the latter of whom was organiser of their own Society, with the former at his back. He was glad the Essex Society had come into being, for it had brought him more into touch with some of his old friends than he had been for some years past. The Architects' Benevolent Society, of which for some time he had been honorary secretary, was doing a good work. That Society was not supported as it should be by the members, and the Council had, therefore, inaugurated a movement to get more interest taken in it. He was glad to say the Southend Chapter, and, he believed, the other chapters, were now helping

it. He had the pleasure of handing to the treasurer a small contribution from Southend.

Mr. Walter Tapper replied. In the course of the speech he said he had wondered what was happening in regard to Southend's Town Hall. He believed it was not yet erected. He hoped it would be pursued vigorously among architects, because there was hardly any civic building which could have greater importance. They in Southend could do nothing better than erect what would be, architecturally speaking, a good Town Hall. He regarded all the arts as fine aids to education. If they could influence masters and teachers in the schools and make them understand that architecture was a vital and important factor in the welfare of the community, they would be doing a really great work, but he felt that people did not give such suggestions the attention they deserved.

Proposing "The Civic Authorities of the County," Mr. Duncan Clark said there was to-day a tendency to centralise administration: he thought it was to be deplored. It would only be done at the expense of local institutions. He hoped the municipalities would hold fast to the powers they had won, in Essex, certainly, from time immemorial. He considered that architects should offer themselves for municipal work.

The Mayors of Southend and of Colchester replied.

The Bishop of Chelmsford spoke in reply to the toast of "The Visitors." He said he would like to underline what Mr. Tapper said about the tremendous importance of architects taking the trouble to educate people who knew nothing about architecture. He wanted to express warm gratitude to the architects for help always freely given.

Mr. MacAlister also spoke on behalf of the guests.

HAMPSHIRE AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION.

A general meeting of the Hampshire and Isle of Wight Architectural Association was held at the Castle of Winchester on Friday, 30 November, the President, Mr. J. Arthur Smith, F.R.I.B.A. (Basingstoke), being in the chair.

The President delivered his annual presidential address, in the course of which he said:—

The chief matter of local professional interest during the year has been the open competition for new municipal buildings at Southampton. It is a matter of congratulation that we were so well represented in the competitive designs by members of this Association, and we congratulate the successful competitor on his achievement. Among the notable works carried out within our area, I take this opportunity to refer to the new headquarters of the Hampshire and General Friendly Society in Jewry Street, Winchester, by Mr. T. D. Atkinson, F.R.I.B.A.—a dignified and scholarly design. We appreciate the fact that good work is being done locally, and I am glad to refer to the work of the County Architect (Mr. A. L. Roberts), our honorary secretary, whose buildings throughout the county maintain a high standard of suitability of design. We congratulate him on his election to the Fellowship, on the nomination of the Council of the Institute. It is a pleasure also to refer to the new petrol pump stations recently erected in the county that are architecturally worthy of commendation, notably at the Wheatsheaf, on the Basingstoke to Winchester road, near the Hut at Chandler's Ford, and in St. Cross Road, Winchester. The President of the Institute referred in his recent address to the preservation of old historic bridges and the building of new. We are fortunate to have in Mr. W. J. Taylor a County Surveyor with a keen appreciation of, and love

for, old bridges. We are grateful to him that in the construction of the new roadway from Redbridge to Totton the fourteenth century bridge at Redbridge has not been disturbed. We are glad also to know that Iford Bridge is to be retained when the new roadway is made in that vicinity. It is unfortunate that the bridge at Ibsley has had to be pulled down because it was not safe, but we are glad to know that all the stones, as they were removed, were marked, to be preserved and reinstated in the rebuilding of the bridge, so that its old character and beautiful lines might be preserved. The Council for the Preservation of Rural England has been very energetically active during the past year, and, in co-operation with them, the many sympathetic committees throughout the country. We, in Hampshire, are doing our part, and are generally responsive to the movement. But, although much is being done by the societies constituted for that special purpose, it is essential to real progress that all architects should recognise that it is their duty, individually, to take a share in the work for the promotion and materialisation of the ideals for the preservation of rural England, and the advancement of art. These ideals can only be realised by the co-operation of all, and by individual sympathy and effort. In this connection the President of the Institute referred to the importance of the representation on local councils of architects, as being best able to serve the community with advice of the right kind in all matters concerning town and regional planning and the amenities of urban and rural districts. Members of our profession have very little time at their disposal for public service on councils and public bodies. Such service means real sacrifice, and we therefore recognise with full appreciation the good work being done in this way by some of our own members, and we hope that others will avail themselves of the opportunity for similar service as it arises. It is gratifying to know that, at the request of the city of Winchester, the Council of our own Association has appointed an Advisory Committee of three architects for consultation by the Local Authority on matters connected with the approval of designs for new buildings within that area. This Committee has a purely advisory and honorary status. But we have every confidence in the representation of these three architects, and I hope that whenever this or any other similarly appointed advisory committee has occasion to submit to any of us suggestions of expediency in planning and design, in the interests of the amenities of the localities, that we shall receive the suggestions with sympathetic consideration. With regard to general education in architecture. A little time ago a special committee was formed by the Board of Architectural Education to consider and report upon methods of interesting students in schools and colleges in architecture and kindred subjects. The constitution of this committee included representatives from the Universities of Oxford and Cambridge, the Head Master of Mill Hill, and a representative from the Educational Department of the London County Council. The report of the Committee has been approved by the Board and by the Council of the Institute, and the recommendations of the report, which are being carried into effect, include the following details: the preparation of a list of books on architecture, suitable for inclusion in school libraries; the founding of an annual prize, open to pupils in public and secondary schools, for an essay or sketches; the arrangement of lectures in public and elementary schools throughout the country under the guidance of the R.I.B.A. and the Allied Societies; the circularisation of all public and secondary schools, urging the importance of interesting their pupils in architecture as an essential element in any minimum liberal education. This is the programme of action which has been adopted, and is being put into immediate effect for the public education of the rising generation in architecture and its allied arts. A great forward movement has thus been started by the Institute and the C.P.R.E., and other similar bodies; but the

revival of architecture is dependent on the individual, and on the co-operation of all who constitute the profession—not only practising architects but every student. Progress towards the ideal at which we are aiming may, and probably will, be slow. But we are confident that the evolution of the mind of the country to the appreciation of the really beautiful is, in the course of time, sure. We as an Association, and individually, have the privilege of being among the pioneers in the work. I hope that we may each recognise in that privilege a duty also, and take some share in the work of propaganda.

CHRISTMAS HOLIDAY LECTURES ON ARCHITECTURE FOR CHILDREN.

The first of the informal talks to children on architecture by Mr. and Mrs. C. H. B. Quennell was given at the Institute on Friday, 28 December, 1928. The following account of the lecture is taken from the *Winchester Guardian*, for 29 December:—

"It was pleasing this afternoon to find the hall of the R.I.B.A. full of children. They were listening with delight to the first of the series of talks on the architectural background of the Homeric poems by Mr. and Mrs. C. H. B. Quennell, whose books on every day life in various historical periods are justly famous as providing a living setting for the story of the past. Mr. Quennell was lecturing, and Mrs. Quennell had made for the screen some delightful drawings of Greek heroes and battles, chiefly from sixth century vases.

"Mr. Quennell began by taking what he called some 'architectural hops,' starting from a picture of a Queen Anne house in the Close at Salisbury and ending with a final leap on the Acropolis at Athens to photograph the Parthenon. The purpose of this was to trace the continuity of the classical influence in building. Such of the schoolboys as have been impelled through a course in the 'Iliad' and have derived little but suffering therefrom would come away from Mr. Quennell's lively and human illustrations of what the heroes looked like, and what sort of ships they sailed in to Troy, feeling that there was something to be said for Homer as a story-teller of the doings of real people."

ROADS OF REMEMBRANCE COMMITTEE.

The Roads of Remembrance Committee have arranged the planting of a Remembrance Tree (*Inercus cerris*) by the Right Hon. The Viscount Ullswater, G.C.B., P.C., on Saturday, 19 January 1929, 2.45 p.m. for 3, by the Mote Mount Golf Club in Barnet By-pass, Mill Hill, N.W.7. At the Edgware Tube Station free transport facilities will be made available by the Committee. Will all those who intend to be present communicate with the Honorary Secretary, Roads of Remembrance, 47, Victoria Street, S.W.1.

THE ARCHITECTS' AND SURVEYORS' APPROVED SOCIETY.

NOTICE OF GENERAL MEETING.

The Annual General Meeting of the Architects' and Surveyors' Approved Society will be held at the Surveyors' Institution, 12, Great George Street, Westminster, London, S.W.1, on Thursday, 24 January 1929, at 6.15 p.m.

As the business to be transacted is important and affects the payment of benefits, members resident in the Metropolitan area are asked to make every effort to attend.

Obituary

THE CONTRIBUTION OF CHARLES RENNIE MACKINTOSH.

BY HOWARD ROBERTSON

With the passing of Charles Rennie Mackintosh the architectural profession loses a pioneer whose work is probably better known and appreciated abroad than in England ; for Mackintosh was in every sense a prophet in deeds if not in words.

His designs for the Glasgow School of Art, the Glasgow Tea-rooms, the *Herald* office, and houses in Chelsea, are amongst his best known works. Their interest, to-day, lies not only in the individuality of the designs, but also in the extent to which they are prophetic of much that is happening in the advanced modern movement, more particularly on the Continent.

The Glasgow School of Art contains in its external treatment, and in many characteristics of its interior detail, the germ of themes to-day familiar through the work of men like Hoffmann, Behrens, Gropius, or Le Corbusier. The viewpoint of Mackintosh must have been very similar to that of many modernists of the present time, his processes of thought the same, his conclusions differing chiefly by reason of the particular influences of his day.

Mackintosh was a leader in the group of Scottish designers who attempted to plough a new furrow about the time of the Arts and Crafts Exhibition of 1890. His Art principles were well described by the late Hermann Muthesius, in an interesting foreword descriptive of a design by Mackintosh (in collaboration with his wife, Margaret Macdonald-Mackintosh) which was submitted for a competition initiated by the *Zeitschrift für Innendekoration*. The programme was for the house of an art-lover, and Mackintosh's design, in the light of present-day modernism, is astonishingly suggestive.

The basic feature of his outlook on the problem is his conception of unity. The general form, both in plan and elevation, is both coherent and consistent ; there is a feeling for character which is maintained throughout, one of simplicity and breadth, with freedom in composition, and complete independence of stylistic elements in conception and detail. The plan of this house carries a strong suggestion of the sort of "poché" which is found in a plan by Le Corbusier or Lloyd Wright ; it has great simplicity, and a strong and untroubled plastic quality. As regards the elevations, they might, with a few alterations, pass as designs by any of the leaders amongst the present day ultra-moderns.

The element of novelty, apart from the character of the main form, lay in the conception of the interior decoration. Here Mackintosh carried out the precepts of the new Scottish School, in considering the treatment of the interiors as a composite whole. To quote the words of Muthesius :— "English artists had devoted all their attention and care to the reform of the various details of domestic economy, the design of new carpets and textiles, furniture, stained glass, and copper utensils, as well as to the revival of artistic printing ; and their efforts had made it possible already to obtain all these commodities in a

form which it was a pleasure to handle. It remained for others to treat the dwelling-house as a composite whole, and to design each room, in respect of its plan, decoration and furniture, as a harmonious work of art. . . . The room gradually became regarded as a work of art in itself, not merely an accidental outcome of various artistic details collected together."

In looking at Mackintosh's project for this house, and at his executed work in Glasgow, his grasp of unity in design is at once evident. He was a master of general form, and even when this form was in itself unpleasant, it was never uncontrolled.

His designs are marred to a great extent by the introduction of motifs belonging to the "art nouveau." In some cases he has handled them with a personal touch which arouses admiration, at other times his invention seems to have run riot, and a complex ingenuity wars with the simplicity of his geometrical conceptions of form. The Glasgow tea rooms are marvellous for pure invention and phantasy, the School of Art building has still higher qualities. But in other designs of Mackintosh it would appear that at times the artist was not sufficiently an artist to stay his hand.

The eccentricities of the art nouveau school have dated and staled. But the bigger contribution of Mackintosh remains ; it lies in his grasp of form and this ability to achieve a strong unity. In these things he was ahead of his time ; people fought him for his tricks, where they might have admired him for his principles. But he will not be forgotten when the history of the modern movement is fully written.

Mr. Mackintosh was born in Glasgow in 1869 and was educated at the Art School in that city and at Paris. He was articled to John Hutchison, of Glasgow, and in 1889 won the Greek Thomson Travelling Studentship. His most important building, and that which immediately brought him into public prominence, was his Glasgow School of Art, designed at the end of the last century. Among the many buildings which he designed for Scotland the best known, apart from his Glasgow School of Art, are the Hill House, Helensburgh, and the Willow Tea Houses, Glasgow, in which the internal decorations are the work of his wife, Mrs. Margaret Mackintosh, who helped with the interiors of many of his buildings. The Music Room, Vienna, designed for Fritz Warndorfer, is another of his better known works.

CHARLES HARRISON TOWNSEND [Ret. F.]

It is with very much regret that we have to announce the death of Charles Harrison Townsend, suddenly in his 78th year, on the 26th December, 1928. Mr. Townsend was elected a Fellow in 1888 and appears in the current Kalendar in the list of Retired Fellows for the first time. Mr. Townsend was a member of the Literature Committee on many occasions and had held the offices of Honorary Secretary and Vice-Chairman of the Committee. He was much interested in architectural literature, used the Institute library frequently and presented it with a collection of photographs of Italian Mosaics in 1915.

Mr. R. Anning Bell, R.A., one of Mr. Townsend's closest friends has contributed a sympathetic obituary notice to *The Times* which we quote:—

"Townsend's death leaves a gap in the dwindling group of men who, in the nineties and later, worked for a revival of interest in architecture and the allied arts on a modern note, respecting tradition but trying to avoid the imitation of past styles, a movement which is growing stronger daily as the newer conditions and the changes in materials give opportunity.

"As an architect he will be remembered for the Bishoptsgate Institute, the Horniman Museum in South London, the Whitechapel Art Gallery, and All Saints, Knightsbridge, with its series of stained glass windows by Heywood Sumner and the Jow reliefs by Derwent Wood; St. Martin's, Chilworth, where Mrs. Lea Merritt painted the walls; and many other buildings about the country, wherever he could in collaboration with other artists, whether in stone or metal, wood, mosaic, or stained glass. He himself alone thus designed some excellent textiles and wall-papers, and was experienced in many forms of design. He wrote many articles on architectural and kindred subjects for the magazines; perhaps his most important literary work was his series of Cantor lectures and the edition of Nash's *Mansions*.

"He was a man much appreciated by his friends, to whom his wide knowledge and a certain whimsical quippish humour, always accompanied by a touch of old-fashioned courtesy, much endeared him. He was a past-Master of the Art Workers Guild, and the organiser of many of its expeditions abroad, occasions on which his charm of manner and careful attention to detail smoothed the path of many a timid or even fretful traveller. He was connected with the organisation and hanging of various exhibitions of British art on the Continent, in some of which the present writer was associated with him. His patience and good humour and a certain quaint talent for making friends with the speakers of North Italian dialects still dwell in the memory. His health was good to the end and the announcement of his age will be a surprise to most of his friends as both his appearance and his vivid interest in contemporary affairs were those of a much younger man. He died unmarried."

EDWARD PAGE HOWARD [A.]

Mr. Edward Page Howard died early in 1928 after a very short illness at "Birdbrook," Cranleigh, Surrey.

He was born at Invercargill, New Zealand, and received his architectural training there in the office of Mr. F. W. Burwell [F.], with whom he continued for some time as assistant.

He came to England in 1887, and spent some time as a student at the Atelier under Mr. Baggally. Subsequent to this, he went on a sketching tour on the continent. On returning to England, he worked for a time as an assistant in various offices, and, like many another, did a good deal of "devilling" for others.

He shared an office with a friend in Gray's Inn Square, from which, after a time, he moved to larger offices in Cursitor Street, Chancery Lane. He was a successful competitor in several large competitions, in some of which he collaborated with well-known architects.

Some time before the war, family reasons compelled his return to New Zealand, where he was detained until its close. As a non-combatant, he with Mrs. Howard was instrumental in organising an association for the provision of comforts for the troops, and particularly for the succour of orphans and the children of disabled soldiers.

Subsequently he and his wife returned again to England, and they settled down to a quiet country life in Surrey, where they devoted their leisure to gardening pursuits.

Mr. Howard was a good draughtsman, most careful and thorough in his work, and as an architect had a wide and clear

grasp of large and complicated problems. He was a staunch friend, and a man of great strength of character and integrity.

J. A. M.

L.T.-COLONEL H. P. DOW, A.M.I.MECH.E.

By the death of Colonel Dow on Friday, 21 December 1928, we have lost one more of those Volunteers who were given commissions in the Royal Engineers on the recommendation of the Selection Committee of the Architects' War Committee.

Colonel Dow joined the Royal Engineers, in 1915, as Sub-Lieutenant, and rose to the rank of Colonel by merit. He was in Paris at the time of the Armistice, and was created Chevalier de la Légion d'Honneur by the French Government on the declaration of Peace. His intimate knowledge of French, and particularly his command of technical terms in engineering, and mastery of specifications and accounts, together with his familiarity with the French and Belgian markets and procedure, rendered his services of great value to his country; and all those who served with him will regret to hear of his death at the comparatively early age of 49.

He was a man who never made an enemy, and over a period of more than 30 years' intimate friendship, the present writer does not remember a single occasion upon which Dow lost his temper or acted unkindly towards another. He was essentially a most lovable disposition.

T. E. Y.

F. W. EGGINIS [A.]

Mr. Frank Wallis Eggins died suddenly at Paignton on 6 December 1928 at the age of 31. He became an Associate of the Institute in 1922, and before commencing business in Paignton he was with the firm of Messrs. Mawson, London.

Mr. Eggins was responsible for the whole of the planning of the Council's housing site at Preston, and among other work which he did in Paignton was the planning of the building which was formerly the Parkside Club. He was also co-architect in the planning of the Palace Hotel.

Mr. Eggins served three and a half years in the Royal Engineers as a signaller during the war in France.

STANLEY G. HUDSON [F.]

Mr. Stanley G. Hudson [F.], died on 10 December 1928, at the age of 51.

He was the third son of the late Edward W. Hudson, A.R.I.B.A., and designed and executed the plans for the Town Hall and Law Courts in Durban, South Africa.

R.I.B.A. EXAMINATION FOR CANDIDATURE AS DISTRICT SURVEYOR IN LONDON.

It is to be regretted that more candidates do not sit for the Statutory Examination, which should be taken by all students who are anxious to test their knowledge in building craft, whether they intend to apply for appointments as District Surveyors or not, as the examination is a strictly practical one, and the preparation for the examination is an excellent training.

The London County Council are anxious to increase the number of architects qualified for appointment to District Surveyorships. All the appointments are to districts the fees of which amount to at least £1,000 per annum, and it is felt that were this fact better known many more practising architects would present themselves for examination by the Royal Institute of British Architects with a view to obtaining the certificate of competency required under Section 140 of the London Building Act, 1894. The appointments for which the Council invites applications by advertisement are, it should be noted, for the less lucrative districts, as it is the Council's practice to appoint the District Surveyors of proved capacity to the more lucrative districts as vacancies occur.

R.I.B.A. Prizes and Studentships, 1929

The designs and drawings submitted for the Prizes and Studentships in the gift of the Royal Institute are now on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, and will remain open to members and the public until 21 January (10 a.m. till 8 p.m., Saturdays 5 p.m.). The Council's Deed of Award, read at the General Meeting of 7 January, is as follows :—

DEED OF AWARD OF PRIZES AND STUDENTSHIPS.

MONDAY, 7 JANUARY 1929.

To the Ordinary General Meeting, Monday, 7 January 1929.

Gentlemen,

Pursuant to the terms of By-law 74, that the Council shall, by a Deed of Writing under the Common Seal, award the Prizes and Studentships of the year, and announce such Awards at the next General Meeting after the adjudication, the Council have the honour to state that they have examined the several works submitted for the Tite Prize, the Victory Scholarship, the Pugin Studentship, the Owen Jones Studentship, the Royal Institute Silver Medal (Essay), the Henry Saxon Snell Prize, the R.I.B.A. (Alfred Bossom) Travelling Studentship, the Grissell Gold Medal and the Godwin and Wimperis Bursary.

THE TITE PRIZE : A CERTIFICATE AND £50.

140 candidates took part in the Preliminary Competition and 27 were admitted to the Final Competition.

The Council report that in the Final Competition 27 designs for a Private Yacht Club on the Mediterranean were submitted under the following mottoes :—

Doll	Tosky	Leo
Egol	Nyria	Worse
Cressonnée	Wannah	Vuil
Salamander	Bowsprit	Bohun
Simple Simon	Wuf	Tento
Joey	Qwertyu	Buddha
Purity	Bantu	Xmas
Spalato	Egwert	Bellerophon
Flops	Toggels	Como

The Council have awarded the Certificate and, subject to the specified conditions, the sum of fifty pounds to the author of the design submitted under the motto "Worse,"¹ and Certificates of Honourable Mention to the authors of the designs submitted under the mottoes "Simple Simon,"² "Leo,"³ "Salamander,"⁴ and "Como."⁵

THE VICTORY SCHOLARSHIP : A SILVER MEDAL AND £150.

36 candidates took part in the Preliminary Competition

¹ Wm. Crabtree, 40 Windsor Road, Doncaster (Liverpool University School of Architecture).

² C. St. C. Oakes, 28 Surrey Road, Harrow (Northern Polytechnic).

³ J. L. Martin, "Holmleigh," Bramhall Lane, Bramhall, Cheshire (School of Architecture, Victoria University, Manchester).

⁴ F. R. S. Yorke, Llwynon, Redditch, Worcs. (Birmingham School of Architecture).

and of these 12 were admitted to the Final Competition. In addition 9 candidates were admitted direct to the Final Competition.

The Council report that in the Final Competition 13 designs for a Faculty of Fine Arts in a University were submitted under the following mottoes :—

Pluto	Seven	Ovolo
Duo	Conquered	Barle
Nigs	Mark	Rubble
Merc	Quis	
Dawel	Palan	

The Council have awarded the Victory Scholarship and, subject to the specified conditions, the sum of £150 to the author of the design submitted under the motto "Seven,"⁶ and Certificates of Honourable Mention to the authors of the designs submitted under the mottoes "Conquered"⁷ and "Mark."⁸

THE PUGIN STUDENTSHIP : A SILVER MEDAL AND £75.

Ten sets of drawings were submitted by the following :

1. F. W. C. Adkins (Polytechnic School of Architecture).
2. I. H. K. Beattie (Edinburgh College of Art).
3. K. A. Begg (Edinburgh College of Art).
4. T. A. Brittain.
5. F. R. Cox (Birmingham School of Architecture).
6. R. F. Jordan (Birmingham School of Architecture and Architectural Association).
7. W. H. Kininmonth (Edinburgh College of Art).
8. F. W. Maitland (Armstrong College, Newcastle-on-Tyne).
9. J. L. Martin (Victoria University, Manchester : School of Architecture).
10. R. H. Matthew (Edinburgh College of Art).

The Council have awarded the Pugin Silver Medal and, subject to the specified conditions, the sum of £75 to Mr. R. H. Matthew (Edinburgh College of Art), and a Certificate of Honourable Mention to Mr. F. R. Cox (Birmingham School of Architecture).

THE OWEN JONES STUDENTSHIP : A CERTIFICATE AND £100.

One candidate applied for admission to the Preliminary Competition, and was admitted to the Final Competition.

The Council report that in the Final Competition one design for a colour scheme for a Waiting Room in a Main Terminus Station of an Important Railway was submitted under the following motto :—

Fife.

The Council regret that they are unable to award the Owen Jones Studentship.

⁵ John F. D. Scarborough, c/o Messrs. Oakley and Parkes, 343 Little Collins Street, Melbourne.

⁶ Miss Betty Scott, Kensington Palace Mansions, W.8 (Architectural Association).

⁷ E. G. Gardner, Hotel St. Kilda, Torrington Square, W.C.1 (Architectural Association).

⁸ George A. Goldstraw, B.A., A.R.I.B.A., 76 Cholmondeley Road, Pendleton, Salford (School of Architecture, Victoria University, Manchester).

THE ROYAL INSTITUTE SILVER MEDAL AND £50 FOR AN ESSAY.

Three Essays were submitted under the following mottoes :—

Olav Tradition Inmor

The Council have awarded the Silver Medal and £50 to the author of the Essay on "Bell of Lynn, a contemporary of Sir Christopher Wren," submitted under the motto "Tradition."⁹

THE HENRY SAXON SNELL PRIZE: A SUM OF £100.

One set of drawings was submitted by the following :—
John Creese.

The Council regret that they are unable to award the Henry Saxon Snell Prize.

THE R.I.B.A. (ALFRED BOSSOM) TRAVELLING STUDENTSHIP.

1. R.I.B.A. (Alfred Bossom) Silver Medals.—The Council have awarded R.I.B.A. (Alfred Bossom) Silver Medals to the authors of the designs and reports submitted under the following mottoes :—

Skyros¹⁰ Twohoots¹²
Bruno¹¹ Spes¹³

2. R.I.B.A. (Alfred Bossom) Travelling Studentship. A Gold Medal and £250.—The Council have awarded the R.I.B.A. (Alfred Bossom) Gold Medal and, subject to the specified conditions, the sum of £250 to the author of the design for, and report on, a first class block of flats in the residential quarter of an important city, submitted under the motto "Bruno."¹⁴

THE GRISSELL GOLD MEDAL AND £50.

Two designs for a large Town House were submitted under the following mottoes :—

Polaris Atlast

The Council regret that they are unable to award the Grissell Gold Medal and £50. A Certificate of Honourable Mention has been awarded to the author of the design submitted under the motto "Atlast."¹⁵

THE GODWIN AND WIMPERIS BURSARY: A SILVER MEDAL AND £250.

Three applications were received from the following :—

V. O. Rees [A].
Hope Bagenal [A].
F. O. Templeton [A].

The Council have awarded the Medal, and subject to the specified conditions, the sum of £250 to Mr. Hope Bagenal, A.R.I.B.A.

⁹ James F. Howes, Port Vale House, Hertford, Herts (Royal Academy School of Architecture).

¹⁰ Terence Walter Snailum, A.R.I.B.A., Central Y.M.C.A., Great Russell Street, W.C. (Architectural Association).

¹¹ Frank Scarlett, B.A., A.R.I.B.A., 1 Ruskin Close, N.W.11 (School of Architecture, London University).

¹² Johnson Blackett, A.R.I.B.A., Municipal Chambers, Corn Street, Newport, Mon.

THE ARTHUR CATES PRIZE: A SUM OF £50.

The Council report that no applications were received for the Arthur Cates Prize.

THE ASHPITEL PRIZE, 1928.

The Council have, on the recommendation of the Board of Architectural Education, awarded the Ashpitel Prize (which is a Prize of Books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the Final Examinations of the year) to Mr. James Thomas Castle [A.], of 26 High Street, Roehampton, S.W.15, Probationer 1925, Student 1927, and who passed the Final Examination July 1928.

THE R.I.B.A. SILVER MEDAL FOR SCHOOLS OF ARCHITECTURE RECOGNISED FOR EXEMPTION FROM THE FINAL EXAMINATION.

The Council have awarded the Silver Medal for the best set of drawings submitted at the Annual Exhibition of Designs by Students of Schools of Architecture recognised for exemption from the Final Examination to Mr. David Bowen Solomon of the Liverpool University School of Architecture.

THE R.I.B.A. BRONZE MEDAL AND £5 IN BOOKS FOR SCHOOLS OF ARCHITECTURE RECOGNISED FOR EXEMPTION FROM THE INTERMEDIATE EXAMINATION.

The Council have awarded the Bronze Medal and £5 in books for the best set of drawings submitted at the Annual Exhibition of designs by Students of Schools of Architecture recognised for exemption from the Intermediate Examination to Mr. Herbert Jackson, of the Birmingham School of Architecture.

In witness thereof the Common Seal has been hereunto affixed this seventh day of January Nineteen Hundred and Twenty-nine at a Meeting of the Council.



WALTER TAPPER, President.
E. STANLEY HALL,
HENRY M. FLETCHER,
Members of Council.
SYDNEY D. KITSON,
Hon. Secretary.
IAN MACALISTER, *Secretary.*

R.I.B.A. EXAMINATIONS, NOVEMBER AND DECEMBER 1928.

The questions set at the Intermediate, Final and Special Examinations held in November and December 1928, have been published, and are on sale at the Royal Institute, price 1s. (exclusive of postage).

¹³ A. A. V. Campbell, A.R.I.B.A., c/o The Westminster Bank, St. James's Street, S.W.1.

¹⁴ Frank Scarlett, B.A., A.R.I.B.A., 1 Ruskin Close, N.W.11 (School of Architecture, London University).

¹⁵ L. M. Chitale, A.R.I.B.A., 19 Bedford Square, W.C.1 (School of Architecture, London University).

THE EXAMINATIONS.

DECEMBER 1928.

THE FINAL EXAMINATION.

The Final Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from 5 December to 13 December 1928.

Of the 60 candidates examined (5 of whom took Part 1 only) 26 passed (4 in Part 1 only), and 34 were relegated.

The successful candidates are as follows : Alexander, A.G.; Ayerst, C. T.; Barnard, A. E.; Brown, R. N.; Cadman, H. G.; Carr, F. H.; Carr, Terence; Cartwright, T. N.; Coleman, J. J.; Daniel, T. M. (Distinction in Thesis); Howes, J. F. (Distinction in Thesis); Hunte, L. Le; Johns, B. W.; Lamb, William (Part 1 only); Law, O. W. M.; Manderson, F. K.; Thewlis, E. C.; Trouton, A. M. O. (Part 1 only); Usher, Wilfred; Vine, C. M.; Walton, D. G.; Watson, Walter; Watt, John; White, E. J. (Part 1 only); Williams, Siroli (Part 1 only); and Winbush, H. S.

The Special Examination.—The Special Examination qualifying for candidature as Associate R.I.B.A. was held in London from 5 December to 11 December 1928.

Of the 18 candidates examined (6 of whom took Part 1 only) 8 passed (3 in Part 1 only), and 10 were relegated.

The successful candidates are as follows :—Banks, P. H.; Brown, J. S.; Edwards, A. S.; Kidd, H. D.; Knight, G. W. (Part 1 only); Morant, C. A. L.; Morris, W. A. (Part 1 only); Peel, Arthur (Part 1 only).

The Examination in Professional Practice for Students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination.—The Examination was held in London and Edinburgh on 11 December and 13 December 1928. Of the 27 candidates examined 15 passed and 12 were relegated.

The successful candidates are as follows :—Breakwell, John; Brewster, C. C.; Butling, G. A.; Carter, F. R.; Cochrane, J. B.; Hall, Douglas; Hamilton, A. O.; Harrison, G. S.; Hirst, William; Mitchell, Thomas; Ritchie, J. A.; Solomon, D. B.; Wailes, P. A.; Wall, M. L. J.; Whittingham, A. B.

The Special Examination in Design for former Members of the Society of Architects.—The Examination was held in London from 5 December to 10 December 1928.

1 candidate was examined and was relegated.

The Special Examination for former Candidates of the Society of Architects.—The Examination was held in London from 5 December to 13 December 1928.

1 candidate was examined and was relegated.

R.I.B.A. Statutory Examinations for Candidates for the Office of District Surveyor in London and for Candidates for the Office of Building Surveyor under Local Authorities.—The attention of prospective candidates is called to the fact that the time-table (not the syllabus) for the Examinations has been revised with the effect of allowing more time for the written section of the Examinations.

Particulars of the amended time-table may be obtained on application to the Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 7 January 1929 :—

BATES : BERTRAM HAROLD, 87 Alliance Avenue, Hull.

BEST : NORMAN, 40 Cobden Road, Chesterfield, Derbyshire.

BETTS : RANDOLPH COTGRAVE, c/o Messrs. Nobbs & Hyde,

14 Phillips Square, Montreal, Canada.

BUBB : EDWARD CAVENDISH, 145 Louisville Road, Tooting Bec, S.W.17.

BURRINGTON : THOMAS, 25 Sutherland Place, W.2.

CAMPBELL : KENNETH JOHN, 2 Mayerne Road, Eltham Hill, S.E.9.

CHAPLIN : JOHN PERCIVAL, 22 Weaponness Valley, Scarborough.

CHASSER : GEORGE McDONALD, 17 Roseneath Road, Urmston, Manchester.

DAVIS : ERNEST EDWIN, 81 Lyndhurst Grove, S.E.15.

EDWARDS : SIDNEY ROY, 11 Bickham Park Road, Peverell, Plymouth.

FRITH : ALFRED GERALD PETTER, York Cottage, Yeovil, Somerset.

GIBBERD : FREDERICK ERNEST, Clarendon House, Clarendon Street, Earlsdon, Coventry.

GREENWOOD : SYDNEY, "Hillcrest," Hawthorn Avenue, Monton, Manchester.

HERBERT : ANTHONY, 98 Regent Road, Leicester.

HILLS : JAMES WILLIAM, c/o Pryde, 2 Willowbrae Avenue, Edinburgh.

HINTON : ROBERT CHARLES HAMILTON, 16 Lakeside Road, Palmers Green, N.13.

HUMPHREY : WILLIAM EDWARD, 90 Curzon Street, Long Eaton, Derbyshire.

JACKSON : WILLIAM THEODORE, 42 Sutton Road, Muswell Hill, N.10.

LACOSTE : GERALD AUGUSTE CHARLES, 19 Upperton Gardens, Eastbourne.

LOVETT : WILLIAM FRANCIS BENJAMIN, 34 Cartwright Gardens, Tavistock Square, W.C.1.

LOWRY : WILFRED LAURENCE, 218 Portland Street, Southport.

MARSTON : FRANK, 13 Whitmore Road, Beckenham, Kent.

MASSEY : EDWARD FRANCIS, Laburnum House, Manchester Road, near Warrington.

MAYMAN : LESLIE GILPIN, 122 Victoria Avenue, Hull.

NICHOLLS : HERBERT EDWARD, "Callerton," Upper Cimla Road, Neath.

PASSMORE : ARCHIBALD JOHN, 89 Beechdale Road, Brixton Hill, S.W.2.

PHILLIPS : ROY LOVELL, 15 Routh Road, S.W.18.

PIERCE : STEPHEN ROWLAND, 39 Great James Street, W.C.1.

PORTEOUS : SELWYN BERKELEY, 202 Upland Road, E. Dulwich, S.E.22.

RAVEN : GEOFFREY, 44 First Avenue, East Dene, Rotherham.

REES : LISTER PHILIP, 8 Oakley Square, Camden Town, N.W.1.

REID : JAMES EUGENE, 63 Ashwell Road, Manningham, Bradford, Yorks.

RENDELL : FREDERICK CHARLES, 5 Ensor Mews, Onslow Gardens, S.W.7.

RITCHIE : JOHN ARCHIBALD, 17 Clarendon Road, W.11.

SANDERS : FREDERICK JOHN, 6 Prospect Road, Moseley, Birmingham.

SHERWIN : ROBERT WHITE, 8 Beechcroft Avenue, Stafford.

SMITH : DENIS BALMFORTH, Oakfield, Rodley, Leeds.

SMITH : ERNEST WILLIAM, "Dewidale," Anston Avenue, Worksop, Notts.

SOPER : STEPHEN FREDERIC EDMUND, 1 Lansdowne Place, W.C.1.

SYKES : CHARLES, "Rathgar," Kilburn Road, Fulford Road, York.

TRINADE : ZEPHYRINUS AVELINO, P.W.D. Colombo, Ceylon, India.

ULRIK : MARGOT, Little Steading, Upper Warlingham, Surrey.

WAILES : PHILIP ARTHUR, Knotty Green, Beaconsfield, Bucks.

WRITER : AARON, 76 Tredegar Road, Bow, E.3.

Notices

THE SIXTH GENERAL MEETING.

The Sixth General Meeting (Ordinary) of the Session 1928-29 will be held on Monday, 21 January 1929, at 8.30 p.m., for the following purposes:—

To read the Minutes of the General Meeting (Ordinary) held on 7 January 1929; formally to admit members attending for the first time since their election.

Mr. Oswald P. Milne [F.] to read a criticism on the designs and drawings submitted for the Prizes and Studentships.

The President, Mr. Walter Tapper, A.R.A., to present the Medals and Prizes awarded by the Council for 1929.

R.I.B.A. PREMISES. SPECIAL GENERAL MEETING, FRIDAY, 25 JANUARY 1929 AT 8.0 P.M.

On the written requisition of twenty subscribing members under the provisions of Bye-law 67, the Council have called a Special General Meeting to take place on Friday, 25 January 1929 at 8.0 p.m.

Mr. Alan Munby [F.] has given notice that he will move the following Resolutions:

1. That the Council through its Premises Committee be requested to report to the General Body upon the negotiations for a new site for the Institute premises.
2. That the Council be empowered to instruct the Premises Committee to obtain the first refusal in such manner as they may think fit of any site or building which they may consider desirable, and if necessary to pay for an option therefor.
3. That the Council be empowered to instruct the Premises Committee to accept such offer for the Institute premises in Conduit Street, subject to the progress of negotiations for a new site, as the Premises Committee may think fit.
4. Any other Resolutions relevant to the above matters which may appear desirable.

SPECIAL GENERAL MEETING. TUESDAY, 15 JANUARY 1929.

A Special General Meeting will be held on Tuesday, 15 January 1929, at 5.30 p.m., when Mr. H. V. Lanchester, Vice-President, will read a Paper on "The Development of South London." Tea will be provided at 5 p.m.

This is the first of a series of Special Meetings which the Art Standing Committee hope to arrange, at which Papers on the Development of London and similar problems will be read.

ANNUAL SUBSCRIPTIONS.

Members' subscriptions, Students' and Subscribers' contributions became due on 1 January 1929.

The amounts are as follows:—

Fellows	..	..	..	£5	5	0
Associates	..	..	..	£3	3	0
Licentiates	..	..	..	£3	3	0
Students	..	..	..	£1	1	0
Subscribers	..	..	..	£1	1	0

COMPOSITION OF MEMBERS' SUBSCRIPTIONS FOR LIFE MEMBERSHIP.

The attention of Members is drawn to the scheme for compounding subscriptions for Life Membership which was approved by the General Body at the Business Meeting held on Monday, 5 December 1927.

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis:—

For a Fellow by a payment of £73 10s. (70 guineas).

For an Associate or Licentiate by a payment of £44 2s. (42 guineas), with a further payment of £29 8s. on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 1s. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 1s. per annum for every completed year of membership of the Royal Institute.

THE IMPERIAL WAR GRAVES COMMISSION AND THE R.I.B.A. REGISTER OF ASSISTANTS SEEKING ENGAGEMENTS.

Owing to the completion of much of the work of the Imperial War Graves Commission a good many of the employees, including architects, clerks of works, etc., are becoming redundant, and are leaving the Commission's services, and have not yet obtained re-employment.

A list of those whom the Commission can recommend has been received by the Secretary R.I.B.A., and their names have been placed in the R.I.B.A. Register of Assistants seeking engagements, with an outline of their qualifications, etc. Further particulars can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, W.1.

PROPOSED TOUR TO THE UNITED STATES AND CANADA.

It will be remembered that an announcement was made in the JOURNAL some little time ago regarding a proposed visit to America, and the Secretary has pleasure in announcing that arrangements have now been completed for a party of members of the Institute and Allied Societies to make a short trip to the United States and Canada in July next.

The party will sail from Liverpool for New York by the Cunard liner *Laconia*, on 13 July, and will return from Quebec by the *Ascania* on 3 August, arriving in Plymouth 10 August, and London on 11 August. The places visited on the other side will include:—

New York—Washington—Detroit—Niagara Falls—

Toronto—Montreal—Quebec, the trip from Toronto to Montreal being made by steamer down the River St. Lawrence, passing the Thousand Islands *en route*.

The cost of the trip will be approximately £95, this figure including cabin class accommodation on the above-mentioned steamers, rail fares in the U.S.A. and Canada, hotel accommodation (exclusive of meals ashore), sight-seeing trips, etc., and it is believed the trip will prove most attractive.

The Secretary R.I.B.A. will be glad to hear from those

members who are interested and to forward a detailed itinerary of the tour on request.

Relatives and friends of members will be welcomed.

R.I.B.A. DEBATES BETWEEN ARCHITECTS AND SPECIALISTS.

On Wednesday, 23 January 1929, at 5.30 p.m., a debate will be held at the R.I.B.A., 9 Conduit Street, London, W.1, on "The Relations between the Architect and the Decorator with a view to their closer co-operation." Mr. Godfrey Giles, President of the Incorporated Institute of British Decorators, will open the debate, and Mr. G. G. Wornum, F.R.I.B.A., will reply on behalf of the architects.

This debate will be the first of four which have been arranged to take place during January, February, March and April. The following is the programme for the remaining debates:—

Tuesday, 19 February 1929, at 5.30 p.m.—

Subject : "Plumbing, Reasonable Modern Practice and the Improvement of Bye-laws to Permit of it."
Speakers : Mr. W. H. M. Smeaton (Worshipful Company of Plumbers). Mr. T. P. Bennett, F.R.I.B.A.

Tuesday, 19 March 1929, at 5.30 p.m.—

Subject : "Metal Fittings of Buildings in Modern Practice."
Speakers : Mr. W. G. Pringle, of Messrs. Bague's, Ltd.
Mr. Robert Atkinson, F.R.I.B.A.

Tuesday, 23 April 1929, at 5.30 p.m.—

Subject : "Organisation."
Speakers : Mr. Matthew Hill (Messrs. Higgs and Hill).
Mr. Maurice E. Webb, D.S.O., M.C., F.R.I.B.A.

It is hoped that as many as possible will attend the debates and that the discussions will be general and useful.

ALFRED C. CONRADE EXHIBITION.

An exhibition of the works (paintings and drawings) of Alfred C. Conrade will be held in the galleries of the Royal Institute of British Architects, 9 Conduit Street, February 5-16, inclusive.

ACCOMMODATION FOR STUDENTS OF ARCHITECTURE.

The widow of a well-known artist resident in St. John's Wood has two or three vacancies for young students of art and architecture as paying guests.

A comfortable home is offered in a congenial atmosphere, suitable for young people possessing common interests.

Further particulars can be obtained from the Secretary R.I.B.A.

ELECTION OF MEMBERS

4 FEBRUARY 1929.

An election of Members will take place at the Business General Meeting to be held on Monday, 4 February 1929. The names and addresses of the Candidates (with the names of their proposers) found by the Council to be eligible and qualified for Membership according to the Charter and Bye-laws and recommended by them for election are as follows:—

AS FELLOWS [32].

AXEN : HERBERT JOSEPH [A. 1912], Architectural Department, Northern Polytechnic, Holloway, N. 7; 63 Cecil Road, Enfield, Middlesex. Proposed by T. P. Bennett, Francis J. Garlick, George A. Mitchell.

COLLINS : OWEN HYMAN, M.A., P.A.S.I. [A. 1921], 115 Old Broad Street, E.C.2; "Avening," Grainger Hill, Maidenhead, Berks. Proposed by M. E. Collins, Sir Edwin Cooper, Charles E. Varndell.

DODD : RONALD FIELDING [A. 1920], 21 Turl Street, Oxford; 3A St. Giles, Oxford. Proposed by Harold S. Rogers, Edward Warren, Thomas Rayson.

EATON : WILLIAM [A. 1890], 6 Penylan Place, Roath Park, Cardiff. Proposed by Arthur H. Hind, Harry Teather, D. Pugh-Jones.

HAGELL : FREDERIC WILLIAM [A. 1909], 33 Furnival Street, E.C.4; 32 Harberton Road, N.19. Proposed by J. Henry Pitt, Edwin J. Sadgrove, Bertram D. Cancellor.

HORN : ROBERT WILLIAM [A. 1895], 20 Trongate, Glasgow; 30 Kersland Street, Glasgow, W.2. Proposed by James Lochhead, Colonel J. Maurice Arthur, John Wilson.

HUMPHRY : FRANCIS JOHN [A. 1906], 17 Southampton Street, Bloomsbury, W.C.1; 9 Lovelace Gardens, Surbiton, Surrey. Proposed by Keith D. Young, Alner W. Hall, Gilbert M. Simpson.

KNIGHT : FRANK WARDL [A. 1911], 3 Verulam Buildings Gray's Inn, W.C.1; 7 Raeburn Close, Wildwood Road, N.W.11. Proposed by Sir John W. Simpson, Sir Edwin Cooper, Geoffrey Lucas.

MARTIN-KAYE : DOUGLAS NIEL [A. 1919], School of Arts and Crafts, Southend; 99 Boston Avenue, Southend. Proposed by Sir Charles Nicholson, Robert Lowry, Robert Atkinson.

MEREDITH : EDWARD [A. 1915], 7 Goodmayes Road, Goodmayes, Essex. Proposed by H. Harrington, Gilbert H. Lovegrove, Chas. J. Dawson.

PARHAM : ARTHUR DOUGLAS [A. 1923], Public Works Department, Colombo, Ceylon. Proposed by A. Woodeson, S. Douglas Meadows, N. Wynne-Jones.

ROWSE : HERBERT JAMES [A. 1910], India Building, Water Street, Liverpool; "Arrochar," Heswall, Cheshire. Proposed by E. Bertram Kirby, Professor C. H. Reilly, Sir Giles Gilbert Scott.

SAMPLE : EDMUND FREDRICK RONALD [A. 1922], c/o Messrs. Denison, Ram and Gibbs, 8A Des Voeux Road Central, Hong Kong. Proposed by Edward A. Ram, Arthur G. W. Tickle, A. Colbourne Little.

SANVILLE : GERALD [A. 1905], 60 King Street, Manchester; Brow Cottage, Bollin Hill, Wilmslow, Cheshire. Proposed by Paul Ogden, Francis Jones, John Swarbrick.

SAVEGE : OLIVER FREDERICK, M.C. [A. 1920], 3 Market Square, Kuala Lumpur, F.M.S.; 5 Conlay Road, Kuala Lumpur, F.M.S. Proposed by W. F. Hedges, D. McLeod Craik, Frank W. Brewer.

SHINER : LAWRENCE ALEXANDER DAVID, P.A.S.I. [A. 1910], 34 Buckingham Palace Road, Westminster, S.W.1; Dukes Hall, Billericay, Essex. Proposed by P. J. Westwood, Henry J. Ashley, Osborn C. Hills.

THOMPSON : WILLIAM HARDING, M.C. [A. 1914], 5 Verulam Buildings, Gray's Inn, W.C.1; 8 Selwood Terrace, South Kensington, S.W.7. Proposed by Professor S. D. Adshead, Stanley C. Ramsey, C. H. James.

WARD : FRANK DORRINGTON [A. 1909], Public Works Department, Straits Settlements; 80 Western Road, Penang, Straits Settlements. Proposed by W. Campbell Oman, D. McLeod Craik, Major P. Hubert Keys.

WILLMOTT : EDMUND CHARLES MORGAN [A. 1906], 4 Park Place, Cardiff; "Marfred," Cyn Coed Road, Cardiff. Proposed by Percy Thomas, Harry Teather, T. Alwyn Lloyd.

And the following Licentiates who have passed the qualifying Examination:—

GALLOWAY : DAVID WISHART, 2 Market Street, Brechin; Oldmanse, Brechin. Proposed by George P. K. Young, John Keppie, James B. Nicol.

KEAY : LANCELOT HERMAN, Director of Housing, Municipal Offices, Liverpool ; Red House, Allerton Road, Liverpool. Proposed by Major Harry Barnes, S. Poynton Taylor, S. N. Cooke.

KILLBY : ASHLEY SCARLETT, M.M., 83 85 High Street, Tunbridge Wells, Kent ; Hawkwell House, Pembury, Kent. Proposed by E. Stanley Hall, Sir John W. Simpson, H. V. Lanchester.

LEE : FREDERICK WILLIAM HOBILL, 11 Waterloo Place, Leamington Spa ; 7 Northumberland Road, Leamington Spa. Proposed by Ernest C. Bewlay, F. Barry Peacock, J. Stockdale Harrison.

MAJOR : ERNEST HARRY, 43 Doughty Street, W.C.1 ; Queen Anne's Mansions, St. James's Park, S.W.1. Proposed by Jas. W. Farmer, Lionel U. Grace, E. Stanley Hall.

MASEY : CECIL AUBREY, Grecian Chambers, Devereux Court, Strand, W.C.2 ; 17 Stafford Road, Wallington, Surrey. Proposed by John P. Briggs, Digby L. Solomon, Professor A. E. Richardson.

ROBINSON : JOHN JOSEPH, 8 Merrion Square, Dublin ; 5 Waltham Terrace, Blackrock. Proposed by Fred C. Hicks, Robert Atkinson, Henry J. Lyons.

UNDERHILL : BARON COLLINGWOOD SEYMOUR, 33 Newhall Street, Birmingham ; 62 St. Albans Road, Moseley, Birmingham. Proposed by C. E. Bateman, G. Sulway Nicol, J. Percival Bridgwater.

WHITE : FREDERICK, 16 Cumberland Mansions, Bryanston Square, W.1 ; 9 Lyndale Avenue, Finchley Road, N.W.2. Proposed by A. Edward Hughes, Rees Phillips, A. Saxon Snell.

And the following Licentiates who are qualified under Section IV, Clause 4, c. (ii) of the Supplemental Charter of 1925 :—

CAIRNS : JAMES DAVIDSON, 63 George Street, Edinburgh ; Arnsheen, Peebles. Proposed by James A. Arnott, Jn. Begg, John Wilson.

PENMAN : LARMONT DOUGLAS, Clydeview, Largs, Ayrshire ; Nithsdale, West Kilbride. Proposed by Wm. Hunter McNab, John Keppie, John Watson.

SAGE : EDGAR, 32 Sussex Square, Brighton. Proposed by the Council.

YERBURY : JOHN EDWIN, 429 Strand, W.C.2. Proposed by the Council.

AS ASSOCIATES [15].

ALLEN : ERNEST CECIL PORTER [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 6 Belsize Square, Hampstead, N.W.3. Proposed by Howard Robertson, C. H. James, J. Murray Easton.

BULL : HENRY ALEXANDER HARVEY [Passed five years' course at the Technical College, Cardiff. Exempted from Final Examination after passing Examination in Professional Practice], 27 Westgate Street, Cardiff. Proposed by Percy Thomas, Harry Teather, T. Alwyn Lloyd.

CORNFORD : ROGER HENLEY COPE, B.A. (Cantab.) [Final], 59 Ranelagh Gardens Mansions, S.W.6. Proposed by Sir John W. Simpson, Sir Banister Fletcher, Professor A. E. Richardson.

COTTON : ARTHUR CALVALEY [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "Cedar Bank," Poplar Road, Oxton, Cheshire. Proposed by Professor C. H. Reilly, Sir Edwin L. Lutyens, H. H. Jewell.

CUMINE : ERIC BYRON [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 48 Szechuan Road, Shanghai, China. Proposed by Howard Robertson, Robert Atkinson, Fred Kempster.

FELLOWES : NORTON ALEXANDER, B.Arch. (McGill) [Passed five years' course at McGill University, Montreal. Ex-

empted from Final Examination after passing Examination in Professional Practice], 212 Westmount Boulevard, Westmount, Quebec, Canada. Proposed by Professor Ramsay Traquair, William Carless, Philip J. Turner.

HARRIS : EDWARD RICHARD BINGHAM [Final], Bedford Row House, 58 Theobalds Road, W.C.1. Proposed by Arthur Stratton, Arthur H. Moore, T. Gordon Jackson.

HUTCHISON : WILLIAM MARTIN [Final], c/o R. A. Lippincott, Esq., Yorkshire Insurance Building, Auckland, New Zealand. Proposed by Professor A. E. Richardson, W. R. Jaggard, and the Council.

MACFADYEN : IRENE JOANNA [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 9 Bury Street, Chelsea, S.W.3. Proposed by Howard Robertson, J. Murray Easton, Robert Atkinson.

MACKENZIE : KENNETH RONALD B.Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "Seaford," Molesey Avenue, Auckland Park, Johannesburg, South Africa. Proposed by Allen Wilson, D. M. Sinclair, S. C. Dowsett.

PARRY : HENRY THOMAS [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Post Office, Penmorfa, Portmadoc, North Wales. Proposed by Professor C. H. Reilly, Robert Pierce, and the Council.

PIERCE : STEPHEN ROWLAND [Special Exemption], 39 Great James Street, W.C.1. Proposed by Howard Robertson, E. Hollyer Evans, C. H. James.

ROBERTS : LESLIE HUGH BENNET [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 4 Sutcliffe Close, N.W.11. Proposed by Howard Robertson, Sir Giles Gilbert Scott, A. Gilbert Scott.

THOMPSON : Captain ERIC LANGDON [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 6 Bedford Row, W.C.1. Proposed by Howard Robertson, J. Murray Easton, E. Hollyer Evans.

TURNER : ERNEST CHARLES [Special], 60 Lammes Park Road, Ealing, W.5. Proposed by Alexander G. Bond, Bruce Dawson, and the Council.

AS HON. FELLOWS [2].

CHAMBERLAIN : THE RT. HON. ARTHUR NEVILLE, P.C., M.P., 37 Eaton Square, S.W.1. Proposed by the Council.

PEEL : VISCOUNT, THE RT. HONBLE. WILLIAM ROBERT WELLESLEY, P.C., G.B.E., 34 Holland Park, W.11. Proposed by the Council.

AS HON. ASSOCIATES [4].

DANIEL : AUGUSTUS MOORE, National Gallery, Trafalgar Square, W.C. Proposed by the Council.

PENOYRE : JOHN, C.B.E., M.A., 8 King's Bench Walk, Inner Temple, E.C.4. Proposed by the Council.

SMITH : SIR PHILIP COLVILLE, C.V.O., 55-60 Great Queen Street, W.C.2. Proposed by the Council.

THOMPSON : ALEXANDER HAMILTON, M.A., Hon. D.Litt., F.B.A., F.S.A., Professor of History, University of Leeds, Beck Cottage, Adel, Leeds. Proposed by the Council.

AS HON. CORRESPONDING MEMBERS [2].

HAMMOND : CHARLES HERRICK, President, The American Institute of Architects, 1335 East 52nd Street, Hyde Park Station, Chicago, Illinois. Proposed by the Council.

LETROSNE : CHARLES, President, Société des Architectes diplômés par le Gouvernement, Expert pris le tribunal de la Seine, Officier de la Legion d'honneur, 21 Rue Henri Rochefort, Paris, XVII. Proposed by the Council.

Competitions

BOROUGH OF CHESTERFIELD : COMPETITION FOR NEW INFANT AND JUNIOR SCHOOL.

The Competitions Committee desire to call the attention of Members to the fact that the Conditions of the above Competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.

BELFAST WAR MEMORIAL COMPETITION.

Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

COMPETITION FOR THE COLUMBUS MEMORIAL LIGHTHOUSE.

A copy of the report containing complete details of the conditions governing the above competition has been received in the R.I.B.A. Library. Members who desire to enter the competition are required to fill up a registration form and return it to the Pan American Union, Washington. A number of forms are being sent to the R.I.B.A., and can be obtained from the Secretary as soon as they are received. Preliminary details of the competition were published in the R.I.B.A. JOURNAL, 14 July 1928.

R.I.B.A. COMPETITION FOR A DESIGN FOR A GARAGE IN THE THEATRE AREA OF LONDON.

The conditions for the R.I.B.A. Competition for the Design of a Garage in the theatre area of London, the prize money for which has been presented by Mr. H. S. Horne, of 74, Park Street, London, W.1, have now been issued and copies may be obtained free by intending competitors on application to the office of the R.I.B.A., 9, Conduit Street, London, W.1.

The competition is open to architects and students of architecture of British nationality.

The first prize is a sum of £350, and in addition £140 will be divided at the discretion of the assessors between competitors whose designs are considered especially meritorious.

The attention of the Assessors has been called to references in the press to the R.I.B.A. Competition for a Design for a Garage in the Theatre area of London.

The Assessors wish to point out :—

- (1) That the whole competition is hypothetical.
- (2) That there is no intention on the part of the R.I.B.A. to convey the impression that the building will be executed.
- (3) That the designs and drawings will remain the property of the competitors.

The site is purposely left indefinite so as to give full scope for new ideas on this interesting subject.

SIMON BOLIVAR MEMORIAL.

PRELIMINARY DETAILS OF A COMPETITION FOR THE ERECTION OF A MONUMENT TO THE LIBERATOR BOLIVAR IN THE CITY OF QUITO.

A competition has been opened for the erection in Quito of a monument to Bolivar.

The Ecuadorean Minister in Paris and two members of the Sociedad Bolivariana of Quito, residing in Paris, will form a Committee to organise and carry out the said competition.

A jury of four members, composed of experts, artists and art critics will judge the works presented.

The designs, "Esbozos" (drawings or sketches), "maquettes," etc., which it is desired to present must be forwarded to the Legation of Ecuador, 91 Avenue Wagram, Paris, not later than 31 March 1929.

The sum of 2,000,000 French francs is available for the purpose of erecting the monument. This sum includes the fees of the artist who will carry out the work, either by himself or with others acting under his direction.

Honourable mention will be awarded to the authors of the designs adjudged second and third.

The decision of the Jury will be submitted to the Sociedad Bolivariana, of Quito, for ratification, prior to the contract with the author of the selected design being signed.

Members' Column

APPOINTMENTS VACANT.

ARCHITECTURAL ASSISTANT.—To be suitably qualified, preference being given to candidates with accepted professional qualifications and training in architectural design and draughtsmanship. Salary £350 per annum. Forms of Application may be obtained upon application, enclosing stamped addressed foolscap envelope, to Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham. Last day for receiving applications 22 January 1929.

A MANCHESTER ARCHITECT will have a vacancy shortly for a first-class assistant, University and R.I.B.A. qualifications. Age 25 to 35.—Reply Box 1404, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

APPOINTMENT WANTED.

APPOINTMENT wanted by Architect (R.I.B.A., A.M.S.E.) to a company or business firm. Sound and practical experience.—Apply Box 7129, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

ASSISTANCE OFFERED.

A.R.I.B.A., experienced, having spare time, offers reliable assistance, or full conduct of work, including supervision, adjusting accounts, etc. Good knowledge of quantities. Would consider partnership with an established firm.—Box 4041, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A. (Midlands) with good and varied experience in School, Domestic, Factory and other General work, also Quantities, Final Accounts and Competition Work is free to render temporary assistance to architects, at own office, or otherwise by arrangement, or would consider partnership in a well-established practice.—Apply Box 2812, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP WANTED.

PARTNERSHIP required in London or Kent district by A.R.I.B.A. with wide and exceptional experience as designer and detailer of high class Domestic, Bank and Office buildings. Highest references.—Apply Box 1128, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

OFFICE ACCOMMODATION.

FELLOW of the Institute with a West-End office having a room to spare desires to meet another architect with a view to sharing accommodation and running expenses.—Reply Box 7474, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

OFFICE ACCOMMODATION.

AN Associate of the Institute in private practice with well-appointed office near Bedford Row, is willing to act as London representative for provincial Architects, and undertake to visit, supervise and report upon work during progress.—Box 8129, c/o The Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

F.R.I.B.A., with an office in the West End, desires to meet another Architect with a view to sharing accommodation and running expenses.—Apply Box 2118, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

MANUFACTURERS' CATALOGUES.

NORMAN JONES (Fellow) will be pleased to receive manufacturers' catalogues at his Manchester Office, 7, Pall Mall.

Minutes VI

SESSION 1928-1929.

At the Fifth General Meeting (Ordinary) of the Session 1928-1929, held on Monday, 7 January 1929, at 8 p.m.

Mr. Walter Tapper, A.R.A., President, in the Chair.

The attendance book was signed by 26 Fellows (including 8 members of Council), 30 Associates (including one member of Council), 3 Licentiates (including 2 members of Council), one Honorary Associate, and a large number of visitors.

The Minutes of the Ordinary General Meeting held on 17 December 1928, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of.

Andreas Lawritz Clemmensen, of Copenhagen, elected an Honorary Corresponding Member in 1926.

Stanley George Hudson, elected Fellow 1906.

Charles Harrison Townsend, elected Fellow 1888, and transferred to the list of Retired Fellows in 1927. Mr. Townsend was a Member of the Council in Session 1905-6, and for many years a Member of the Literature Standing Committee. He served as Hon. Secretary to the Committee 1906 to 1911, 1912 to 1915, and 1923 to 1924, and as a Vice-Chairman 1919 to 1921. Mr. Townsend was also a member of the Board of Examiners from 1897 to 1901 and from 1910 to 1913.

Victor Tyrlston Hodgson, elected Licentiate 1911. and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since election were formally admitted by the President:—

Mr. Robert W. Pite [F.J.].

Mr. F. Waterman [A.J.].

The Secretary announced that the Council had nominated for election to the various classes of membership the candidates whose names are published in this issue of the JOURNAL.

The Chairman announced that by a resolution of the Council the following had ceased to be members of the Royal Institute:—

As Associates.

Walter Herbert Caley.

Vernon Hugh Hughes.

As Licentiates.

John Francis Burkinshaw.

John Henry Charles Gosling.

John George Douglas Hoets.

Dr. Oscar Faber, O.B.E. [Hon. Associate] having read a paper on "The Expansion and Contraction of Building Materials, due to Temperature, Humidity, Stress and Plastic Yield," a discussion ensued, and on the motion of Mr. Alan E. Munby [F.J.], seconded by Mr. W. E. Vernon Crompton [F.J.], a vote of thanks was passed to Dr. Oscar Faber by acclamation and was responded to.

The Secretary having read the Deed of Award of Prizes and Studentships made by the Council under the Common Seal, the sealed envelopes bearing the mottoes of the successful competitors were opened and the names disclosed.

The proceedings closed at 10.45 p.m.

ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66 $\frac{2}{3}$ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

RATE OF INTEREST, 5 $\frac{1}{2}$ per cent. gross.

REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1929: 26 January; 9, 23 February; 9, 23 March; 13, 27 April; 18 May; 1, 15, 29 June; 13 July; 10 August; 21 September; 19 October.

